APPENDIX A

NONBINDING ALLOCATION OF RESPONSIBILITY

(One Page)

Department of Toxic Substances Control

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

PRELIMINARY NONBINDING ALLOCATION OF RESPONSIBILITY

Health and Safety Code (HSC) section 25356.1(e) requires the Department of Toxic Substances Control (DTSC) to prepare a preliminary nonbinding allocation of responsibility (the "NBAR") among all identifiable potentially responsible parties (PRPs). HSC section 25356.3(a) allows PRPs with an aggregate allocation in excess of 50% to convene an arbitration proceeding by submitting to binding arbitration before an arbitration panel. If PRPs with over 50% of the allocation convene arbitration, then any other PRP wishing to do so may also submit to binding arbitration.

The sole purpose of the NBAR is to establish which PRPs will have an aggregate allocation in excess of 50% and can therefore convene arbitration if they so choose. The NBAR, which is based on the evidence available to the DTSC, is not binding on anyone, including PRPs, DTSC, or the arbitration panel. If a panel is convened, its proceedings are de novo and do not constitute a review of the provisional allocation. The arbitration panel's allocation will be based on the panel's application of the criteria spelled out in HSC section 25356.3(c) to the evidence produced at the arbitration hearing. Once arbitration is convened, or waived, the NBAR has no further effect, in arbitration, litigation or any other proceeding, except that both the NBAR and the arbitration panel's allocation are admissible in a court of law, pursuant to HSC section 25356.7 for the sole purpose of showing the good faith of the parties who have discharged the arbitration panel's decision.

For the marsh crust and subtidal areas at the FISC Annex and Alameda Point, the Navy agrees that the preliminary NBAR may designate that the Navy will be 100% responsible for the implementation of the required Navy activities covered in this RAP. The Navy does not concur with the findings of the NBAR and reserves any and all rights that it may have to challenge the findings of the NBAR in any future proceedings. DTSC's preliminary NBAR is without prejudice to the Navy's right to challenge such allocation in any subsequent proceedings, except the right to seek binding arbitration pursuant to HSC section 25356.3(a) which right is expressly waived. The Navy has further agreed that it reserves its rights to seek recovery of its costs against any party whether currently identified as a PRP or otherwise. Consistent with the agreement of the Navy, DTSC's preliminary NBAR allocates 100% of the responsibility for implementation of the required Navy activities covered by this RAP to the Department of the Navy.

APPENDIX B

CITY OF ALAMEDA ORDINANCE NO. 2824

(14 Pages)

I, the undersigned, hereby certify that the foregoing Ordinance was duly and regularly adopted and passed by the Council of the City of Alameda in regular meeting assembled on the 15th day of February, 2000, by the following vote to wit:

AYES:	Councilmembers Daysog, DeWitt, Johnson, Kerr and Mayor Appezzato - 5.
NOES:	None.
ABSENT:	None.
ABSTENTIONS:	None.

IN WITNESS, WHEREOF, I have hereunto set my hand and affixed the official seal of said City this 16th day of February, 2000.

Diane Felsch

Diane Felsch, City Clerk
City of Alameda

Marsh Crust
Ordinance

file

NOTICE OF EXEMPTION

To: ___ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

or _x_ County Clerk
County of Alameda
1225 Fallon Street
Oakland, CA 94612

From: City of Alameda
Planning Department
City Hall, Room 120
2263 Santa Clara Avenue
Alameda, CA 94501

Project Title: Marsh Crust Excavation Ordinance No. 2824

Project Location - City: Alameda **Project Location - County:** Alameda

Description of Project: City Council adoption of Ordinance No. 2824 on February 16, 2000, providing environmental protection during excavation of potentially hazardous soils in the shoreline Marsh Crust area of Alameda along Oakland/Alameda Estuary. Project does not include individual construction activities within the Marsh Crust; projects will receive individual review under CEQA Guidelines.

Name of Public Agency Approving Project: Alameda City Council

Name of Person or Agency Carrying Out Project: Alameda City Public Works Department

Exempt Status: (check one)
Ministerial (Sec. 15268)
__Declared Emergency (Sec. 15269(a))
__Emergency Project (Sec. 15269(b)(c))
__Categorical Exemption State type & section number
_XX_ Statutory Exemptions State code number: S. 15308 ; also S. 15061(b)(3)

Reasons why project is exempt: The Ordinance is an "action by a regulatory agency for protection of the environment," a Class 8 exemption under Section 15308 of CEQA Guidelines, "to assure the maintenance, restoration, enhancement or protection of the environment." The Ordinance establishes standards for control of subsurface hydrocarbon and other deposits during future construction processes. Individual construction projects are to be evaluated by subsequent CEQA review, under standards of the Ordinance. In addition, Section 15061(b)(3) of the CEQA Guidelines provide, where it can be seen with certainty that a program will not involve activities which may have a significant effect on the environment, the project is exempt. Adoption of an Ordinance causes no physical activities and enhances regulation.

Lead Agency Contact Person: David Valeska, Planner III
Area Code/Telephone: (510) 748-4554

If filed by applicant:
1 Attach certified document of exemption finding.
2 Has a notice of exemption been filed by the public agency approving the project: __ Yes __ No

Signature: _____

Title: Development Review Manager

Date Received for Filing: _____
Date Posted: _____
Date Removed: _____

SUPPLEMENT TO NOTICE OF EXEMPTION, MARSH CRUST EXCAVATION ORDINANCE

BACKGROUND

The City of Alameda borders the Oakland/Alameda Estuary, a waterway connecting to San Francisco Bay. The Estuary shoreline was at a lower elevation in the early 20th Century, when shipping and manufacturing left hydrocarbon deposits on these marsh areas. Later in the 20th Century, landfill raised the elevation of these shoreline areas above the tidal action line, covering the hydrocarbon-impacted tidal marshes. This process resulted in a buried layer of hydrocarbon-saturated soils known as Marsh Crust Exposure of the Marsh Crust may result in hazardous conditions.

In recent years, construction along the north Alameda shoreline has involved excavation and installation of pilings to create foundations for new structures. Excavation below the surface of such properties may result in exposure of the Marsh Crust to the public

Mitigated Negative Declarations adopted by the City in recent years for this area have included mitigations and conditions addressing excavation and pile driving in the Marsh Crust. The City has identified a need for establishment of standards for Marsh Crust excavation and pile driving, which resulted in adoption of the attached Ordinance.

ORDINANCE

The Ordinance provides for standards and procedures to be followed regarding excavation and pile driving in the Marsh Crust area These regulations will minimize the risk of exposure of the public to subsurface hydrocarbon or other chemical deposits which have entered the Marsh Crust due to past chemical leakages. The regulations will protect Estuary wildlife by minimizing the risk of chemical spills into Estuary waters.

The Ordinance does not approve any individual construction projects Each excavation or pile driving activity in the Marsh Crust will separately be evaluated under the California Environmental Quality Act as either requiring a Mitigated Negative Declaration, Categorical Exemption or other procedure.

CONCLUSION

The Ordinance is Categorically Exempt under Section 15308 of the CEQA Guidelines because it establishes regulatory standards for protection of the environment without approving any individual construction projects.

March 1, 2000 dv

NOTICE OF EXEMPTION

Appendix E

To: ☐ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

☒ County Clerk
County of Alameda
1225 Fallon Street
Oakland, CA 94612

From: City of Alameda
Public Works Department
2263 Santa Clara Avenue
Alameda, CA 94501

Project Title: Excavation Ordinance

Project Location - Specific: Former Alameda Naval Air Station and Fleet Industrial Supply Center, Alameda Annex and Facility

Project Location - City: Alameda

Project Location - County: Alameda

Project Description: Adoption of an excavation ordinance to regulate excavation into the Marsh Crust at Fleet Industrial Supply Center and Alameda Naval Air Station, Alameda. The excavation ordinance will require testing and proper handling of soils which may be hazardous, protecting health and human safety

Name of Public Agency Approving Project: City of Alameda

Name of Person or Agency Carrying Out Project:

Exempt Status: (check one)

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section Number: 15061(b)(3)
- ☐ Statutory Exemptions. State code number:

Reasons why project is exempt: The project involves adoption of an excavation ordinance. There is no possibility that the adoption of this ordinance will have a significant impact on the environment. (See attachment)

Lead Agency Contact Person: Dina Tasini **Area Code/Telephone/Extension:** 510/749-5922

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☐ Yes ☐ No

Signature: _____ Date: 2/18/10 Title: Environmental Mgr. Program Mgr.

☐ Signed by Lead Agency Date received for filing at OPR:

☐ Signed by Applicant

CITY OF ALAMEDA ORDINANCE NO. 2824
New Series

AMENDING THE ALAMEDA MUNICIPAL CODE BY AMENDING CHAPTER XIII (BUILDING AND HOUSING) BY ADDING A NEW SECTION 13-56 (EXCAVATION INTO THE MARSH CRUST/SUBTIDAL ZONE AT THE FORMER NAVAL AIR STATION ALAMEDA AND FLEET INDUSTRIAL SUPPLY CENTER, ALAMEDA ANNEX AND FACILITY) TO ARTICLE XVII (PITS, WELLS AND EXCAVATIONS)

WHEREAS, the marshlands and near shore areas once located adjacent to the island of Alameda were filled with dredge material between approximately 1900 and 1940; and

WHEREAS, the marsh crust, and the subtidal zone extending from it, is a horizon that is identifiable in the subsurface (the interface at the bottom of the fill material) which contains remnants of grasses and other intertidal and subtidal features; and

WHEREAS, the marsh crust/subtidal zone also contains, at least locally, elevated levels of petroleum-related substances, such as semi-volatile organic compounds, which substances may pose an unacceptable risk to human health and the environment if excavated in marsh crust/subtidal zone materials, brought to the ground surface and handled in an uncontrolled manner; and

CITY ATTORNEY

WHEREAS, proper handling, storage and disposal of materials excavated from the marsh crust/subtidal zone, pursuant to state and federal hazardous materials laws, will help eliminate unacceptable exposures and risks to human health and the environment; and

WHEREAS, the Draft Base-wide Focused Feasibility Study for the Former Subtidal Area and Marsh Crust and Ground Water (U.S. Navy, February 20, 1999) recommends implementation by the City of an institutional control, such as an excavation ordinance, as a remedial action related to the cleanup by the United States Navy of Naval Air Station Alameda and the Fleet Industrial Supply Center, Alameda Annex and Facility, which closed military installations are anticipated to be transferred to the City; and

WHEREAS, it can be seen with a certainty that adoption of a permitting program by the City that requires proper handling, storage and disposal, pursuant to existing state and federal hazardous materials laws, of materials excavated from the marsh crust/subtidal zone will not involve or require any physical activities other than optional testing of excavated materials and, therefore, is exempt from the California Environmental Quality Act pursuant to California Code of Regulations, title 14, section 15061(b)(3) because there is no possibility that the enactment of the ordinance may have a significant effect on the environment.

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of Alameda that:

Section 1. The Alameda Municipal Code is hereby amended by adding a new Section 13-56 (Excavation Into the Marsh Crust/Subtidal Zone at the Former Naval Air Station Alameda and Fleet Industrial Supply Center) to Article XVII (Pits, Wells and Excavations) of Chapter XIII (Building and Housing) thereof to read:

13-56 EXCAVATION INTO THE MARSH CRUST/SUBTIDAL ZONE AT THE FORMER NAVAL AIR STATION ALAMEDA AND FLEET INDUSTRIAL SUPPLY CENTER, ALAMEDA ANNEX AND FACILITY.

13-56.1 DEFINITIONS.

For purposes of this Section 13-56 the following definitions shall apply:

Bay shall mean San Francisco Bay, including the Oakland Estuary and the Oakland Inner Harbor.

DTSC shall mean the California Environmental Protection Agency, Department of Toxic Substances Control.

Earth material shall mean any rock, natural soil or fill or any combination thereof.

Excavation shall mean the mechanical removal of earth material.

Hazardous materials, as defined in California Health and Safety Code sections 25260(d) and 25501(k), shall mean any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste and any material which a handler or the administering agency has reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Marsh crust shall mean the underground layer that is the remnant of the tidal marsh that existed along the shoreline of Alameda Island before filling to create additional dry land. In many places, this layer contains substances from former industrial discharges that were retained in the historic marsh before filling.

Subtidal zone shall mean the underground layer that is the pre-filling Bay floor extension of the historic marsh. Together, the marsh crust and the subtidal zone constitute a single, continuous, underground layer that extends Bayward of the original mean higher high tide line of Alameda Island, before filling, throughout the area that was filled.

Threshold depth shall mean the depth below which a permit is required by this Section 13-56. The threshold depth is conservatively identified with the elevation above which there is little likelihood that substances from the historic marsh or Bay floor would have mixed during filling, including a margin of safety above the elevation of the historic marsh surface or subtidal zone. In no event will the threshold depth be above mean higher high water.

13-56.2 Permit Required.

a. It shall be unlawful for any person, including utility companies and their employees and contractors, to excavate below a threshold depth above the marsh crust/subtidal zone within the area of the former Naval Air Station Alameda and Fleet and Industrial Supply Center, Alameda Annex and Facility, as depicted in Exhibit A, hereto, without first obtaining a permit in writing from the Chief Building Official.

b. All excavation below the threshold depth in the area subject to this Section 13-56 shall be performed solely in accordance with the permit as approved and issued by the City.

13-56.3 Depth of Excavation Subject to Permit Requirement.

The Chief Building Official shall establish a threshold depth, consistent with DTSC's remedial decision documents pertaining to the marsh crust/subtidal zone, below which a permit shall be required for excavation pursuant to this Section 13-56. The threshold depth may vary by location. The Chief Building Official shall publish a map depicting the parcels and threshold depths for which a permit is required under this Section 13-56. The Chief Building Official may update the map, consistent with DTSC's remedial decision documents pertaining to the marsh crust/subtidal zone, as necessary to incorporate any new information concerning the depth of the marsh crust/subtidal zone received by the City since the preparation of the initial map or last update.

13-56.4 Exception to Permit Requirement.

a. No permit shall be required under this Section 13-56 for pile driving or other penetration of the marsh crust/subtidal zone that involves neither (i) bringing materials from below the threshold depth to above the threshold depth; nor (ii) exposure of construction workers to soil excavated from below the threshold depth.

b. No permit shall be required under this Section 13-56 for excavation associated with emergency repair of public infrastructure facilities; provided, however, that soil excavated from below the threshold depth in the area of the marsh crust/subtidal zone, as depicted on Exhibit A, must be managed as though it were hazardous in accordance with Subsection 13-56.8b.

13-56.5 Permit Application.

Application for a permit shall be made in writing on forms available in or from the Building Services Office and shall be filed in the Building Services Office. Subsection 13-1.2 of Article I of Chapter XXIII regarding Appeals (Section 105.1), Appeal Fee (Section 105.2), Expiration (Section 106.4.4), Permit Fees (Section 107.2) and Plan Review Fees (Section 107.3) shall apply to all permits issued pursuant to this Section 13-56. The information required to be provided on the application shall be determined by the Chief Building Official and shall include at a minimum:

a. A description and map of the property that is to be excavated sufficient to locate the area of proposed excavation on Exhibit A.

b Detailed plans, prepared by a registered civil engineer licensed in the State of California, of the excavation work to be done, including a drawing with dimensions to scale of all proposed excavation activity.

c. A statement of the maximum depth of excavation.

d. All elevations in plans and application materials submitted to the City shall be referenced to City Datum and shall show depth below ground surface.

e. A cost estimate for purposes of determining the amount of the bond required to be obtained pursuant to Subsection 13-56.11.

13-56.6 Certifications and Acknowledgments.

a. The following certifications shall be required as part of the permit application:

1. The applicant shall sign a certification prepared by the Chief Building Official acknowledging receipt of notice that the property to be excavated may be in the area of the marsh crust/subtidal zone, and that hazardous materials may be encountered during excavation.

2. The applicant shall sign a certification prepared by the Chief Building Official acknowledging that federal and state hazardous materials laws and regulations will apply to storage, transportation and disposal of any materials excavated from the marsh crust/subtidal zone that are hazardous materials.

3. The applicant shall sign a certification prepared by the Chief Building Official acknowledging liability for disturbing and removing all materials from the marsh crust/subtidal zone in accordance with this Section 13-56 and the permit.

b. All building and excavation permits issued for construction or excavation within the area subject to this SubSection 13-56 shall contain the following written warning:

"Pursuant to Section 13-56 of Article XVII of Chapter XIII of the Alameda Municipal Code, excavation work in the area of the marsh crust/subtidal zone within the area of the former Naval Air Station Alameda and Fleet and Industrial Supply Center, Alameda Annex and Facility, as depicted in Exhibit A to Section 13-56 of Article XVII of Chapter XIII of the Alameda Municipal Code, may be subject to special materials handling requirements. The permittee acknowledges that he or she has been informed of the special materials handling requirements of Section 13-56 of Article XVII of Chapter XIII of the Alameda Municipal Code and that hazardous materials may be encountered during excavation."

13-56.7 Notification Prior to Start of Excavation.

a. After receipt of a permit and no less than two (2) business days (forty-eight (48) hours minimum) before commencement of any excavation activity in the area subject to this Section 13-56, the permittee shall notify the Chief Building Official of the planned start of excavation. Said notification shall include a schedule for any excavation work that will last for more than one day.

b. The permittee shall give adequate notice to Underground Service Alert prior to commencing any excavation activity subject to this Section 13-56.

13-56.8 Materials Handling.

The permittee shall elect to follow one or more of the courses of action set forth below before beginning any excavation activities in the area subject to this Section 13-56. Unless otherwise demonstrated by the permittee by means of reconnaissance investigation pursuant to Subsection 13-56.8a, or unless the permittee prepares site management plans pursuant to Subsection 13-56.8c, soil below the threshold depth in the area of the marsh crust/subtidal zone, as depicted on Exhibit A, must be managed as though it were hazardous pursuant to Subsection 13-56.8b. The permittee may elect to follow Subsection 13-56.8a, but must comply with Subsection 13-56.8b or 13-56.8c if testing demonstrates that the materials below the threshold depth are hazardous materials. Copies of all reconnaissance testing results and/or existing information used to satisfy the reconnaissance investigation requirements of Subsection 13-56.8a shall be reported to and filed with the City. All observations or encounters with the marsh crust/subtidal zone during excavation shall be reported to the City.

a. **Reconnaissance Investigation to Rule Out the Presence of Hazardous Materials Below the Threshold Depth.**

The permittee may elect to use reconnaissance borings, pursuant to a plan prepared by a qualified registered engineer or registered geologist, licensed in the State of California, to rule out, to the satisfaction of the Chief Building Official, the presence of hazardous materials below the threshold depth in the area to be excavated. As part or all of the reconnaissance plan, the permittee may make use of existing information, where appropriate, if the existing information is directly relevant to the location and depth to be excavated and contains observations or results of analyses that assist in concluding whether hazardous materials are present. The reconnaissance report shall include a description of all observations from below the threshold depth evidencing the presence or absence of the marsh crust/subtidal zone.

1. If hazardous materials are found below the threshold depth within the area to be excavated at any time (during reconnaissance or during excavation), the permittee shall comply with either Subsection 13-56.8b or Subsection 13-56.8c, at his or her election.

2. If hazardous materials are not found below the threshold depth within the area to be excavated, no additional materials controls, except as otherwise may be required under applicable federal, state or local law, are required under this Section 13-56.

b. Handling Materials Excavated From Below the Threshold Depth as Hazardous Materials.

If the permittee has not ruled out the presence of hazardous materials pursuant to Subsection 13-56.8a, or elects not to prepare a site management plan and materials testing program pursuant to Subsection 13-56.8c, the permittee shall presume that materials excavated from below the threshold depth must be disposed at an appropriately permitted disposal facility. In addition, no excavated materials from below the threshold depth may be stockpiled prior to disposal or returned to the excavation.

c. Preparation of Construction Site Management Plan for Handling Materials Excavated From Below the Threshold Depth.

1. In lieu of handling materials excavated from below the threshold depth pursuant to the restrictions in Subsection 13-56.8b, the permittee may elect to hire a qualified registered engineer or registered geologist, licensed in the State of California, to develop a site-specific construction site management plan, including a materials testing program, to the satisfaction of the Chief Building Official. The construction site management plan shall include, at a minimum, provisions governing control of precipitation run on and run off from stockpiled soils, soil segregation, securing of stockpiled soils, duration of stockpiling, and contingency plans for handling materials excavated from below the threshold depth that prove to be hazardous materials.

2. The permittee shall hire a qualified registered engineer or registered geologist, licensed in the State of California, to oversee compliance with the approved construction site management plan, and shall transmit to the Chief Building Official upon completion of the project written certification of compliance with the construction site management plan. The certification report shall include a description of all observations from below the threshold depth evidencing the presence or absence of the marsh crust/subtidal zone.

13-56.9 Health and Safety Plan.

The applicant shall cause to be prepared by a certified industrial hygienist, and keep on the construction site at all times, a health and safety plan to protect workers at the excavation site and the general public to the satisfaction of the Chief Building Official. The Chief Building Official may prepare and provide to applicants a model health and safety plan which, if used by the applicant, shall be modified by the applicant's certified industrial hygienist to suit the specific requirements of the applicant's project.

13-56.10 Excavation Site Best Management Practices.

All excavation and materials handling activities permitted under this Section 13-56 shall be conducted in accordance with applicable Alameda Countywide Clean Water Program Best Management Practices and City of Alameda Storm Water Management and Discharge Control Program Ordinance requirements.

13-56.11 Bonds.

Upon a finding by the Chief Building Official that a permit should issue for excavation pursuant to this Section 13-56, a surety or performance bond conditioned upon the faithful performance and completion of the permitted excavation activity shall be filed with the City. Such bond shall be executed in favor of the City and shall be maintained in such form and amounts prescribed by the Risk Manager sufficient to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions.

13-56.12 Nonassumption of Liability.

In undertaking to require applicants for certain excavation permits to comply with the requirements of this Section 13-56, the City of Alameda is assuming an undertaking only to promote the general welfare. The City is not assuming, nor is it imposing on itself or on its officers and employees, an obligation for breach of which it is liable in money damages to any person who claims that such breach proximately caused injury.

13-56.13 Construction on City Property.

a. The Chief Building Official shall prepare standard work procedures that comply with all the requirements of this Section 13-56 for all City

construction or improvement activities involving excavation below the threshold depth in the area subject to this Section 13-56. All departments, boards, commissions, bureaus and agencies of the City of Alameda that conduct construction or improvements on land under their jurisdiction involving excavation below the threshold depth in the area subject to this Section 13-56 shall follow such standard work procedures.

b. The City shall include in all contracts involving excavation below the threshold depth in the area subject to this Section 13-56 a provision requiring City contractors to comply with all the requirements of this Section 13-56. All contracts entered into by departments, boards, commissions, bureaus and agencies of the City of Alameda that authorize construction or improvements on land under their jurisdiction involving excavation below the threshold depth in the area subject to this Section 13-56 also shall contain such standard contract provision.

13-56.14 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Section 13-56 or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Section 13-56 or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase of this Section 13-56 irrespective of the fact that one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional or invalid or effective.

13-56.15 Permit Fee.

No permits for excavation in the marsh crust/subtidal zone shall be issued unless a fee has been paid. The fee shall be set by City Council resolution.

13-56.16 Penalties.

a. Any person, including utility companies and their employees and contractors, violating any of the provisions of this Section 13-56 shall be deemed guilty of a misdemeanor, and each person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Section 13-56 is committed, continued or permitted, and such violation may be prosecuted and punished as an infraction or misdemeanor pursuant to the provisions of Section 1-5.1 of the Alameda Municipal Code.

b. Any person, including utility companies and their employees and contractors, that commences any excavation without first obtaining the necessary permits therefor shall, if subsequently allowed to obtain a permit, pay an amount, in

addition to the ordinary permit fee required, quadruple the permit fee otherwise required.

13-56.17 Retention and Availability of Permit Files

The City shall maintain files pertaining to all permits issued under this Section 13-56, and shall make such files available to DTSC for inspection upon request during normal business hours.

13-56.18 Amendment of Section 13-56

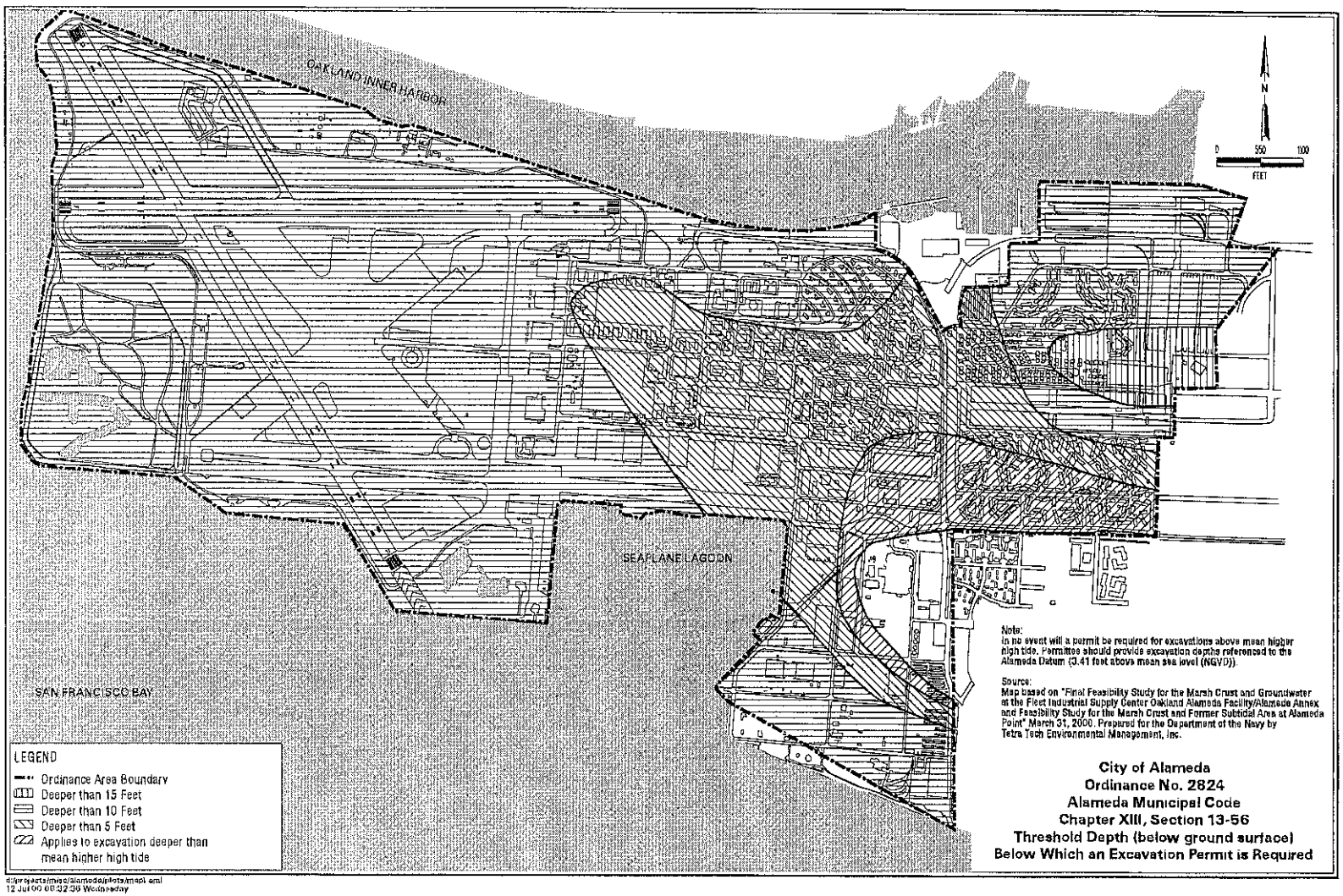
This Section 13-56 shall not be repealed or amended without thirty (30) days prior written notice to the DTSC Deputy Director for Site Mitigation.

Section 2. This Ordinance shall be in full force and effect from and after the expiration of thirty (30) days from the date of its final passage.

Presiding Officer of the City Council

Attest:
City Clerk

* * * * * *



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APPENDIX C

ADMINISTRATIVE RECORD INDEX

(13 Pages)

ADMIN RECORD INDEX: RAP/ROD FOR MARSH CRUST AND GROUNDWATER AT FISC ALAMEDA FACILITY ALAMEDA ANNEX (AN) AND FOR MARSH CRUST AND FORMER SUBTIDAL AREA AT ALAMEDA POINT (AP)

Facility	Document Title	Date	Author
AN	SI SP for Screening Lot and Scrapyard	April 14, 1987	ERM
AN	PA Report	April 1, 1988	NEESA
AN	Phase II Site Investigation at Warehouse Area	May 1, 1988	ERM
AN	Addendum to Preliminary Assessment Report	January 1, 1990	NAVY
AN	Comments on Draft RI/FS, WP, SP, QAPP, and HASP	January 1, 1990	DHS
AN	Risk Assessment Report – Military Housing Site	October 2, 1990	PRC
AN	Draft RI/FS WP, SP, QAPP, and HASP for Screening Lot and Scrapyard	November 29, 1990	NAVY
AN	Comments on RI/FS Study at Screening Lot and Scrapyard	January 12, 1991	BCDC
AN	Draft CRP	February 1, 1991	NAVY
AN	Additional Comments on RI/FS Study at Screening Lot and Scrapyard	February 28, 1991	BCDC
AN	Comments on Draft CRP	April 2, 1991	DHS
AN	Remarks on Navy's Responses to Department of Health Services Comments on Draft RI/FS WP	April 5, 1991	DHS
AN	CRP	May 8, 1991	PRC
AN	Comments on RI/FS WP	May 20, 1991	DHS
AN	Final RI/FS FSP, WP, QAPP, HASP, Screening Lot and Scrapyard Area	May 30, 1991	PRC
AN	Clarification on Use of Background Soil and Groundwater Samples	October 9, 1992	DTSC
AN	Request to Withdraw Phenolics Analysis from Current Analytical Suite	October 19, 1992	NAVY
AN	Approval for Withdrawal of Phenols Analysis from Soil and Groundwater Sampling	October 28, 1992	DTSC
AN	RCRA Facility Assessment	December 1, 1992	DTSC
AN	Facility Background Sampling	December 8, 1992	NAVY
AN	Sampling Results, TM, Screening Lot and Scrapyard Area, Naval Supply Center, Oakland, Alameda Annex and Facility, Alameda, California	February 1993	PRC
AN	Sampling Results, Draft TM, Volumes I through VI of VI	February 1, 1993	PRC
AN	Submission of Draft Risk Assessment Scoping Document	March 8, 1993	NAVY
AN	Final Report, Air Sampling and Analysis, Naval Family Housing Area	March 26, 1993	PRC
AN	Submission of Metals Summary Reports	March 31, 1993	NAVY

ADMIN RECORD INDEX: RAP/ROD FOR MARSH CRUST AND GROUNDWATER AT FISC ALAMEDA FACILITY ALAMEDA ANNEX (AN) AND FOR MARSH CRUST AND FORMER SUBTIDAL AREA AT ALAMEDA POINT (AP)

Facility	Document Title	Date	Author
AN	Comments on TM	April 19, 1993	DTSC
AN	Additional Comments on TM	April 29, 1993	DTSC
AN	Comments on Risk Assessment Scoping Document	April 29, 1993	DTSC
AP	Response to Comments on the Draft Final RI/FS Phases-1 and 2A Data Summary Report	July 26, 1993	NAVY
AN	Draft Addendum Phase II WP, SP, and QAPP	July 29, 1993	NAVY
AN	Draft RI/FS Phase II WP, FSP, QAPP Addendum	July 29, 1993	PRC
AN	Comments on Draft Addendum Phase II WP, SP and QAPP	August 13, 1993	RWQCB
AN	Comments on RI/FS, FSP and QAPP	August 13, 1993	DTSC
AP	Final Data Summary Report RI/FS Phases 1 and 2A Volumes I and II	August 25, 1993	PRC
AN	Groundwater Monitoring Wells	August 28, 1993	PCCD
AN	Quantitation Limits	August 30, 1993	RWQCB
AN	Draft Final Phase II Addendums: WP and FSP	August 30, 1993	NAVY
AN	Response to Comments on Draft Phase II Addendums: QAPP and Radiological Survey	September 23, 1993	NAVY
AN	Meeting Minutes for Conference Call – Quantitation Limits	September 23, 1993	DTSC
AN	Comments on RI/FS Study Phase II Draft Final WP and FSP Addendum	October 4, 1993	DTSC
AN	Final Phase II Addendums: WP, FSP, and QAPP	October 27, 1993	NAVY
AN	Comments on RI/FS Final Phase II WP and FSP Addendum	November 23, 1993	CALF&G
AP	Comments on the Draft FSP, RI/FS Phase 2A	November 23, 1993	DTSC
AN	Final AM, Site 02 – Screening Lot and Scrapyard Area PCB and Lead Contaminated Soil Non-Time Critical	January 10, 1994	NAVY
AN	IRA WP Addendums: WP, FSP, QAPP, HASP	January 10, 1994	NAVY
AN	RI/FS Background Sampling at College of Alameda	January 24, 1994	NAVY
AN	Draft RI/FS RA EE/CA for PCB and Lead Contaminated Soils	February 25, 1994	NAVY
AN	Comments on Draft RA, EE/CA for PCB and Lead Contaminated Soils	March 31, 1994	DTSC
AN	Draft Final IRA WP Addendums: WP, Sampling Plan, QAPP, HASP, CRP	April 1, 1994	NAVY
AN	Response to Agency Comments on Draft RI/FS RA EE/CA for PCB and Lead Contaminated Soils	April 13, 1994	NAVY
AN	Comments on Draft Final IRA WP Addendums	April 22, 1994	BAAQMD

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Facility	Document Title	Date	Author
AN	Revised HHRA Scoping Document	May 5, 1994	NAVY
AN	Comments on RI/FS RA EE/CA for Soil Removal	June 10, 1994	DTSC
AP	Comments on the RI/FS WP Draft Addendum	June 13, 1994	DTSC
AN	Rationale for Collecting Filtered Groundwater Sampling for Metals Analysis	June 29, 1994	NAVY
AN	Identification of State ARARs	July 6, 1994	NAVY
AN	Comments on Revised HHRA Scoping Document	July 8, 1994	DTSC
AN	Draft Final EE/CA for PCB and Lead Contaminated Soils RA	July 14, 1994	NAVY
AN	Agency Comments on Total Metal Analysis for Groundwater Samples	July 29, 1994	DTSC
AN	Agency Comments on Revised Draft RI/FS Interim IRA WP, FSP, HASP, CRP and QAPP Addenda	August 10, 1994	DTSC
AN	Agency Comments on Revised Draft RI/FS IRA WP, FSP, HASP, CRP and QAPP Addenda	August 10, 1994	DTSC
AN	Agency Approval on Draft Final RI/FS RA EE/CA for PCB and Lead Contaminated Soils	August 15, 1994	DTSC
AN	Final RI/FS RA EE/CA for Lead and PCB Contaminated Soils	August 26, 1994	PRC
AN	Final RI/FS RA EE/CA for Lead and PCB Contaminated Soils	August 29, 1994	NAVY
AN	State ARARs	August 29, 1994	DTSC
AN	Public Notice of Comment Period for EE/CA for Installation Restoration (IR) Site 02	August 31, 1994	NAVY
AN	Response to DTSC and Regional Water Quality Control Board's (RWQCB) Comments Regarding Rationale for Collecting Filtered Groundwater Samples for Metal Analysis	September 6, 1994	NAVY
AN	State ARARs	September 27, 1994	DTSC
AN	Navy Response to Agency Letter (8/10/94) Regarding Agency Comments on Draft RI/FS IRA WP, FSP, HASP, CRP, QAPP	October 3, 1994	NAVY
AN	Draft AM for Site 02-Screening Lot and Scrapyard Area PCB and Lead Contaminated Soils RA	October 22, 1994	NAVY
AP	Identification of State ARARs	October 24, 1994	NAVY
AN	Request for Clarification on Property Boundary of FISCO Alameda Facility/Alameda Annex	November 1, 1994	DTSC
AN	Agency Approval on Use of Investigation Derived Waste (IDW) Waste Water for Dust Control	November 3,1994	RWQCB
AN	Agency Comments on Draft AM Site 02-Screening Lot and Scrapyard Area	November 16, 1994	DTSC
AP	State Solicitation of ARARs	November 18, 1994	DTSC
AN	Response to Agency Comments on Revised HHRA Scoping Documents	December 14, 1994	NAVY

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Facility	Document Title	Date	Author
AN	Agency Comment to Navy Response on Collection of Filtered/Unfiltered Groundwater Samples	December 23, 1994	DTSC
AN	Final AM, Site 02, Screening Lot and Scrapyard Area PCB and Lead Contaminated Soil, Non-Time Critical	January 9, 1995	NAVY
AN	Agency Comments on HHRA Assessment Scoping Document	January 24, 1995	DTSC
AN	Draft RI (Volumes I through V)	March 24, 1995	NAVY
AN	Navy Response to Agency Letter Regarding Total Metal Analysis for Groundwater Samples	April 10, 1995	NAVY
AN	Draft WP Site 02 Screening Lot and Scrapyard Area PCB and Lead Contaminated Soils RA	April 19, 1995	NAVY
AN	WP, Site 02 – Screening Lot and Scrapyard Area, PCB and Lead-Contaminated Soils, Non-Time Critical RA, Revision 1 (Replacement Pages only)	May 1, 1995	ITC
AP	RI/FS Draft Data Transmittal Memorandum Sites 4, 5, 8, 10A, 12 and 14, Volumes I and II	May 18, 1995	NAVY
AN	Comments on the Draft RI Report – March 1995	May 26, 1995	RWQCB
AN	Comments on the Draft RI Report	May 31, 1995	DTSC
AN	Groundwater Monitoring of the Deep Monitoring Wells, Telephone Conference of 25 May 1995	June 1, 1995	RWQCB
AN	Comment on Groundwater Monitoring of the Deep Monitoring Wells	June 12, 1995	DTSC
AN	Identification of State ARARs for the RI/FS	June 19, 1995	NAVY
AN	ARARs	June 23, 1995	BDW
AN	Response to Letter of Claim Damages from Alleged "Hazardous Substances Emanating from U.S. Naval Supply Center"	June 30, 1995	NAVY
AN	Final WP Site 02 Screening Lot and Scrapyard Area PCB and Lead Contaminated Soil RA	July 7, 1995	NAVY
AN	Identification of State ARARs	July 13, 1995	DPESTR
AN	ARARs	July 17, 1995	OEHHA
AN	Draft Final RI Report (Volumes I and II) dated July 1995	July 25, 1995	NAVY
AN	Response to Comments on RI/FS	July 26, 1995	NAVY
AP	Comments on the RI/FS Data Transmittal Memorandum for Sites 4, 5, 8, 9, 10A, 12, and 14	July 26, 1995	DTSC
AN	Draft EE/CA Addendum for PCB Contaminated Soils; RI/FS RA	August 1, 1995	PRC
AN	Comments on the Draft RI/FS Report, Response to Navy Comments	August 18, 1995	CALF&G
AN	Draft Quarterly Groundwater Sampling Phase II WP Addendum	August 30, 1995	NAVY

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Facility	Document Title	Date	Author
AN	Comments on the Navy's Response of 26 July 1995 on the Draft RI Report and the Draft Final RI Report – July 1995	August 30, 1995	RWQCB
AN	Comments on the Draft Final RI Report – July 1995, and Navy's Response to Comments	August 30, 1995	DTSC
AN	Department of Fish and Game's Comments on the Draft Final Phase II RI	September 13, 1995	DTSC
AN	Comments on the Draft Quarterly Groundwater Sampling Phase II WP Addendum – August 1995	September 25, 1995	RWQCB
AN	Comments on Draft RA EE/CA Addendum for PCB-Contaminated Soils	September 26, 1995	DTSC
AN	DTSC Request for Navy to Reconsider Usage of Site-Specific PRG in Draft Final RI Report	November 1, 1995	DTSC
AN	Final EE/CA for PCB Contaminated Soils and Sump Removal – November 1996	November 13, 1995	NAVY
AN	FISCO the Annex Site, Alameda, California, Final Remedial Investigation Report	January 1996	PRC
AN	Final RI Report; Volumes I through V	January 1, 1996	PRC
AN	Agree to Usage of DMB to Replace Site-Specific Preliminary Remediation Goals (PRG) in the Draft Final RI Report	January 31, 1996	DTSC
AN	Quality Control (QC) Summary Report, Quarterly Groundwater Monitoring, Fourth and Fifth Quarters – February 1996	February 1,1996	PRC
AN	Final RA EE/CA Addendum for PCB Contaminated Soils and Sump Removal	March 1, 1996	PRC
AN	Groundwater Sampling Phase II Report – February 1996	March 5, 1996	NAVY
AN	Comments on the Final RI Report	March 7, 1996	DTSC
AP	Response to Comments on RI/FS, Draft Data Transmittal Memorandum for Sites 4, 5, 8, 10A, 12, and 14	April 1, 1996	NAVY
AN	Final RI Report – 7 March 1996; (2) Response to Comments; and (2) Revised Pages	April 4, 1996	NAVY
AN	Response to Comments on the Final RI Report – 7 March 1996	April 4, 1996	NAVY
AN	Revised Pages for the Final RI Report – 7 March 1995	April 4, 1996	NAVY
AP	Final RI/FS, Data Transmittal Memorandum, Sites 1, 2, 3, Runway Area, 6, 7A, 7B, 7C, 9, 10B, 11, 13, 15, 16, and 19	May 1, 1996	PRC
AN	Comments on the Final RI Report	May 8, 1996	DTSC
AN	Comments on the Final RI Report – January 1996	May 31, 1996	RWQCB
AN	Response to Comments on the Final EE/CA Addendum, PCB Contaminated Soil and Removal of Sump, Non-Time Critical RA	June 20, 1996	NAVY

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Facility	Document Title	Date	Author
AN	Response to Comments on the Final RI Report	July 8, 1996	NAVY
AP	Identification of State ARARs for the RI/FS	September 12, 1996	NAVY
AN	ARARs for the Interim RA IR Site 02, Screening Lot and Scrapyard Area	September 19, 1996	NAVY
AN	Quarterly Groundwater Monitoring Report (First Interim Quarter, January 1996)	October 18, 1996	PRC
AN	Response to Comments on the Draft Quarterly Groundwater Monitoring Report (First Interim Quarter, January 1996)	October 28, 1996	NAVY
AP	ARARs	November 13, 1996	DTSC
AN	Final Basewide EBS Report, FISCO, Alameda Facility/Alameda Annex, Alameda, California	December 1996	PRC
AN	Final Basewide EBS Report, Revision 1	December 30, 1996	PRC
AN	Draft RA Implementation Report for Removal of PCB and Lead Contaminated Soils, Screening Lot and Scrapyard Area	February 1, 1997	PRC
AN	Quarterly Groundwater Monitoring Report (Second Interim Quarter, April 1996)	February 1, 1997	PRC
AN	Regional Water Quality Control Board (RWQCB) Approval of Navy Conducting Four Quarters of Interim Groundwater Monitoring	February 14, 1997	EPA
AN	Final Engineering EE/CA for PCB Contaminated Soils and Sump Removal	March 1, 1997	PRC
AP	Identification of ARARs for the RI/FS	March 4, 1997	NAVY
AN	Request for Identification of ARARs for the FS	March 19, 1997	NAVY
AN	Quarterly Monitoring Report (Third Interim Quarter, July 1996) – April 1997	April 7, 1997	NAVY
AN	Comments on the Draft RA IR for Removal of PCB and Lead Contaminated Soils	April 25, 1997	DTSC
AN	Comments on the Final RA Engineering Evaluation/Cost Analysis (EE/CA) for PCB Contaminated Soils – March 1997	April 30, 1997	DTSC
AN	DTSC Solicitation for ARARs	May 1, 1997	DTSC
AN	Comments on the Final Basewide EBS Report	May 6, 1997	EPA
AN	Draft Cumulative Groundwater Monitoring Report (1994-1996)	August 12, 1997	NAVY
AN	Summary of the Interim Groundwater Monitoring – August 1997	August 12, 1997	NAVY
AN	Draft FS, Site 02 Screening Lot and Scrapyard Area – August 1997	August 19, 1997	NAVY
AN	Interim Removal Action (IRA) Site 02, Replacement Pages of the Implementation Report – August 1997	September 2, 1997	NAVY

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Facility	Document Title	Date	Author
AN	Comments on the Draft FS, Site 02 Screening Lot and Scrapyard Area – August 1997	October 10, 1997	EPA
AN	AM, IR Site 02 Screening Lot and Scrapyard Area PCB Contaminated Soils and Sump Removal, Non-Time Critical RA	October 16, 1997	NAVY
AN	Summarized Discussion between the Navy and Regulatory Agencies Regarding the Draft FS, Site 02 Screening Lot and Scrapyard Area	October 21, 1997	DTSC
AN	FS, Site 02 Screening Lot and Scrapyard Area Additional Sampling (Chromium) for HHRA	October 28, 1997	NAVY
AN	Comments on the Draft AM for IR Site 02	November 7, 1997	DTSC
AN	Response to Concerns Regarding the Chromium Concentrations, FS Site 02, Screening Lot and Scrapyard Area Additional Sampling Hexavalent Chromium	November 25, 1997	NAVY
AN	Comments on the Hexavalent Chromium Sampling at Site 02	December 1, 1997	DTSC
AN	Comments on the Cumulative Groundwater Monitoring Report	December 15, 1997	DTSC
AN	Comments on the EBS SAPP – November 1997	December 17, 1997	DTSC
AN	Draft History of NAS Alameda and Alameda Point NAS Alameda, Alameda, California	January 1998	IT
AN	Response to Comments on Interim RA AM for IR Site 02	January 1, 1998	NAVY
AN	Final WP, Quality Control Plan (QCP), Environmental Protection Plan, Site Health and Safety Plan (HASP), for the PCB Contaminated Soil Removal	January 1, 1998	ITC
AN	Final AM, IR Site 02 Screening Lot and Scrapyard Area, Polychlorinated Biphenyl-Contaminated Soils and Sump Removal, Non-Time-Critical RA	January 1, 1998	TtEMI
AN	Draft FS for SWMU 4/AOC 2 and AOC 8-January 1998	January 16, 1998	NAVY
AN	Final AM, IR Site 02 Screening Lot and Scrapyard Area, Polychlorinated Biphenyl (PCB) Contaminated Soils and Sump Removal, Non-Time Critical	January 16, 1998	NAVY
AN	Draft FS for Soil at SWMU 1	January 30, 1998	TtEMI
AP	Draft OU 1, RI Report, Volumes I-IV	February 10, 1998	TtEMI
AN	Response to Comments on the Summary of Groundwater Monitoring Report	March 12, 1998	NAVY
AN & AP	Site 18 Storm Sewer System Solids and Debris Removal Action Closeout Report, NAS Alameda, California	April 1998	TtEMI
AP	Comments on Draft OU-1 RI Report	April 10, 1998	EPA
AP	Comments on Draft OU-1 RI Report	April 15, 1998	DTSC

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Facility	Document Title	Date	Author
AN	Comments on the Draft FS for Soil at SWMU 1 and Draft FS for SWMU 4/AOC 2 and AOC 8- January 1998	May 11, 1998	EPA
AN	Comments on the Draft FS for IR Site 02 (IR02) – January 1998	May 11, 1998	DTSC
AN	Draft TM Groundwater Contaminant Fate and Transport Modeling	May 18, 1998	TtEMI
AN	Comments on EBS Sampling and Analysis Project Plans (SAPP)	May 20, 1998	DTSC
AN	Draft On-scene Coordinator Report, IR Site 02 Screening Lot and Scrapyard Area Railroad Sump	June 25, 1998	NAVY
AN	Comments on the Draft FS for IR04, IR06, and IR08 – January 1998	June 29, 1998	DTSC
AN	Solicitation for ARARs	July 9, 1998	DTSC
AN	Comments on the Draft TM Groundwater Contaminant Fate and Transport Modeling – 18 May 1998	July 14, 1998	DTSC
AN	Final On-scene Coordinator Report, IR Site 02 Screening Lot and Scrapyard Area Railroad Sump	July 14, 1998	TtEMI
AN	Response to Solicitation for Applicable or Relevant and Appropriate Requirements (ARARs)	July 20, 1998	CALF&G
AN	Comments on the Draft On-scene Coordinator Report – 26 June 1998	July 27, 1998	DTSC
AN	Ecological Assessment of the Sediment at Outfall 1, FISCO the Annex Site Alameda, California	August 7, 1998	TtEMI
AN	FISCO the Annex Site Alameda, On-scene Coordinator Report, RA IR Site 02 Screening Lot and Scrapyard Area Railroad Sump	August 14, 1998	TtEMI
AN	Comments on the Draft Final Cumulative Groundwater Monitoring Report – 26 June 1998	August 14, 1998	DTSC
AN	Comments on the Response to Comments for the Draft TM, Groundwater Contaminant Fate and Transport Modeling	August 20, 1998	DTSC
AN	Response to Comments on the Draft IR Site 02 FS; Proceeding with Development of the Draft Final	August 28, 1998	NAVY
AN	Draft Final FS for Soil at IR Site 02	September 1, 1998	TtEMI
AN	Draft CRP, Second Addendum	September 1, 1998	TtEMI
AN	IR Site 02 FS; Additional Information Regarding Fruit Tree Roots	September 2, 1998	NAVY
AP	Revised Draft OU-1 RI Volumes I-IV	September 3, 1998	TtEMI
AN	Response to Comments on the IR Site 04, 06, and 08 FS	September 22, 1998	NAVY
AN	Comments on the FS for IR-04, IR-06, and IR-08	September 25, 1998	DTSC
AN	Draft Final FS for SWMU 4/AOC and AOC 8	October 1, 1998	TtEMI
AN	Final Technical Memorandum (TM) Groundwater Contaminant Fate and Transport Modeling	October 2, 1998	TtEMI

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Facility	Document Title	Date	Author
AN	Response to Comments on the Groundwater Monitoring Summary Report and Proposed Plan, RAP/ROD	October 6, 1998	NAVY
AN	Draft FS for SWMU 4/AOC 2 and AOC 8 – October 1998	October 8, 1998	NAVY
AN	Comments on the Potential Exposure Pathway via Fruit Ingestion	October 8, 1998	DTSC
AN	Comments on the IR Site 02 FS, Attachment A – 02 September 1998	October 16, 1998	EPA
AN & AP	Request to Prepare a FS for the Marsh Crust and Related Subtidal Deposits	October 21, 1998	DTSC
AN	Comments on the Cumulative Groundwater Monitoring Report	October 27, 1998	DTSC
AP	Comments on Revised Draft OU-1 RI Report	November 3, 1998	DTSC
AP	Comments on Revised Draft OU-1 RI Report	November 6, 1998	EPA
AN	Response to Comments on the FS, Fruit Tree Groundwater Uptake	November 9, 1998	NAVY
AN	Final Cumulative Groundwater Monitoring Report (1994 to 1996) – 12 November 1998	November 10, 1998	NAVY
AN	Draft Basewide Focused FS for Soil and Groundwater	November 24, 1998	TtEMI
AP	EBS Data Evaluation Summaries Zones 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22	December 1998	IT
AN	Draft Basewide Groundwater Beneficial Use Report Shallow Water Bearing Zone	December 2, 1998	TtEMI
AN	Comments on the Draft Final FS for IR Sites 04, 06, and 08 – October 1998	December 4, 1998	DTSC
AN	Comments on the Draft Basewide Groundwater Beneficial Use Report – 02 December 1998	January 13, 1999	DTSC
AP	Draft Final OU1 RI Report, Volumes I through V	January 18, 1999	TtEMI
AN	FISCO the Annex Site, Alameda, California, Final Feasibility Study for Soil at Solid Waste Management Unit (SWMU) 1	January 22, 1999	TtEMI
AN	FS for IR Sites 04, 06, and 08; Response to Request for Assistance in Coordinating the Removal of Petroleum Product	February 11, 1999	RWQCB
AN & AP	Draft Basewide Focused FS for the Former Subtidal Area and Marsh Crust and Groundwater – 20 February 1999	February 18, 1999	NAVY
AN	Comments on the Draft Basewide Groundwater Beneficial Use Report Shallow Water Bearing Zone – 02 December 1998	February 22, 1999	EPA
AN	Response to Comments on the Draft Final FS for IR Site 04/06 and Site 08	March 11, 1999	NAVY
AN	Response to Comments on IR Site 04/06 RA	March 16, 1999	NAVY
AN & AP	Comments on the Draft Basewide FS for the Former Subtidal Area and Marsh Crust and Groundwater	March 23, 1999	Alameda

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Facility	Document Title	Date	Author
AN & AP	Comments on the Draft Basewide Focused FS for the Former Subtidal Area and Marsh Crust and Groundwater	March 23, 1999	EPA
AN & AP	Comments on the Draft Basewide Focused FS for the Former Subtidal Area and Marsh Crust and Groundwater	March 23, 1999	DTSC
AP	OU-1 RI Report. Final. Alameda Point, Alameda, California	March 23,1999	TtEMI
AN & AP	Response to Comments on the Draft Basewide Focused FS	March 31, 1999	NAVY
AN	Comments on the Navy's Letter of 16 March 1999 Regarding IR Site 04/06 RA	April 7, 1999	DTSC
AN	Comments on the Response to Comments on IR Site 04/06 and Site 08 FS	April 7, 1999	DTSC
AN	FISCO the Annex Site, Alameda, California, Final Feasibility Study for Sites IR 04/06 and IR 08	April 30, 1999	TtEMI
AN	Final Community Relations Plan (CRP), Second Addendum	April 30, 1999	TtEMI
AP	Draft Final OU-3 RI Report, Volumes I through III	May 19, 1999	TtEMI
AN	Draft Supplemental Environmental Baseline Survey (EBS), Alameda Facility/Alameda Annex, Alameda, California	June 7, 1999	TtEMI
AP	Draft OU-2 RI Report (Chapters 1-9, Appendixes A-P), Alameda Point, Alameda, California	June 28, 1999	TtEMI
AP	Final OU-3 RI Report, Volumes I through III, Alameda Point, Alameda, California	August 9, 1999	TtEMI
AN	FISCO the Alameda Annex Site, California, Final Basewide Groundwater Beneficial Use Report Shallow Water Bearing Zone	October 29, 1999	TtEMI
AP	Naval Air Station Alameda Restoration Advisory Board Meeting Summary	December 7, 1999	GPI
AN	FISC Alameda Facility Alameda Annex RAB Meeting Minutes	December 14, 1999	TtEMI
AN	FISC Alameda Facility Alameda Annex BCT Meeting Minutes	December 14, 1999	TtEMI
AP	Draft FOST for East Housing	December 30, 1999	TtEMI
AN	Baseline Human Health Risk Assessment (HHRA), FISCO Alameda Facility/Alameda Annex	January 2000	NEWFIELDS
AP	Naval Air Station Alameda Restoration Advisory Board Meeting Summary	January 4, 2000	GPI
AN & AP	Draft Final FS for the Marsh Crust and Groundwater at the Alameda Facility/Alameda Annex and Marsh Crust and Subtidal Area at Alameda Point	January 6, 2000	TtEMI
AP & AN	Comments on Draft Final Marsh Crust FS	February 7, 2000	EPA
AP & AN	Comments on Draft Final Marsh Crust FS	February 7, 2000	DTSC

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Facility	Document Title	Date	Author
AP	Draft – AM, Marsh Crust Time-Critical RA	February 18, 2000	NAVY
AN	Draft Corrective Action Plan	February 25, 2000	TtEMI
AN & AP	Navy Response to Comments – Draft Final FS for the Marsh Crust and Groundwater	February 25, 2000	NAVY
AP	Draft – RAW for Marsh Crust at the East Housing Area	March 1, 2000	DTSC
AP	Draft Final FOST for East Housing	March 3, 2000	TtEMI
AP	Naval Air Station Alameda Restoration Advisory Board Meeting Summary	March 7, 2000	GPI
AP	Comments on Action Memorandum for Marsh Crust Time-Critical Removal Action at East Housing Area	March 14, 2000	EPA
AP	Draft – Negative Declaration for RAW (includes the Notice of Public Comment Period of 3/21-4/19/00)	March 17, 2000	DTSC
AN & AP	Final Focused Feasibility Study (FS) for the Marsh Crust and Groundwater at the FISCO Alameda Facility/Alameda Annex and FS for the Marsh Crust and Former Subtidal Area at Alameda Point	March 31, 2000	TtEMI
AP	Naval Air Station Alameda Restoration Advisory Board Meeting Summary	April 4, 2000	GPI
AP	Final Finding of Suitability to Transfer (FOST) East Housing Area	April 7, 2000	TtEMI
AP	Action Memorandum (AM) Marsh Crust Time-Critical RA	April 7, 2000	NAVY
AN & AP	Internal Draft – Proposed Plan Marsh Crust and Former Subtidal Area (Alameda Point) and Marsh Crust and Shallow Groundwater (Alameda Annex)	May 1, 2000	TtEMI
AP	RAW – Marsh Crust at the East Housing Area, Alameda Point, Alameda, California	May 2000	DTSC
AP	Naval Air Station Alameda Restoration Advisory Board Meeting Summary	May 2, 2000	GPI
AN	FISC Alameda Facility Alameda Annex Base Closure Team (BCT) Meeting Minutes	May 3, 2000	TtEMI
AN & AP	Internal Draft – RAP/ROD Plan for the Marsh Crust Groundwater (Alameda Annex) and the Marsh Crust and Former Subtidal Area (Alameda Point)	May 5, 2000	TtEMI
AN	Federal Facilities Site Remediation Agreement (FFSRA), Alameda Facility Alameda Annex	May 9, 2000	NAVY & DTSC
AN	FISC Alameda Facility Alameda Annex RAB Meeting Minutes	May 9, 2000	TtEMI
AN & AP	Letter; Institutional Controls	May 11, 2000	EPA
AP	Final RAW for Marsh Crust at the East Housing Area	May 25, 2000	DTSC
AN & AP	Draft Proposed Plan Marsh Crust and Shallow Groundwater (Alameda Annex) and Marsh Crust and Former Subtidal Area (Alameda Point)	June 1, 2000	TtEMI

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Facility	Document Title	Date	Author
AP	Transmittal of Final Negative Declaration for Removal Action Workplan (WP) (RAW)	June 2, 2000	DTSC
AN & AP	Comments on Draft Proposed Plan and Draft RAP/ROD for Marsh Crust and Groundwater at Alameda Annex Former Subtidal Area at Alameda Point	June 5, 2000	DTSC
AP	Naval Air Station Alameda Restoration Advisory Board Meeting Summary	June 6, 2000	GPI
AN & AP	Comments on Draft Proposed Plan and Draft RAP/ROD for Marsh Crust and Groundwater at Alameda Annex and Former Subtidal Area at Alameda Point	June 9, 2000	EPA
AN	FISC Alameda Facility Alameda Annex RAB Meeting Minutes	June 13, 2000	TtEMI
AN & AP	Draft Negative Declaration for RAP for the Marsh Crust and Groundwater at (Alameda Annex) and the Marsh Crust and Former Subtidal Area at (Alameda Point)	June 14, 2000	DTSC
AP	BCT Monthly Tracking Meeting	June 20, 2000	TtEMI
AN & AP	Proposed Plan Marsh Crust and Groundwater Alameda Facility/ Alameda Annex and Alameda Point, Alameda California	June 20, 2000	TtEMI
AN & AP	Draft RAP/ROD for the Marsh Crust and Groundwater (Alameda Annex) and for the Marsh Crust and Former Subtidal Area (Alameda Point)	June 20, 2000	TtEMI
AN & AP	Alameda Naval Air Station and Alameda Facility/ Alameda Annex Public Meeting Transcript	June 29, 2000	Atkinson-Baker
AN & AP	Response to Mr. Daniel Meer's 11 May 2000 letter regarding retention of an interest by Navy for enforcement of institutional controls in property transferring to City of Alameda	June 29, 2000	NAVY
AP	Naval Air Station Alameda Restoration Advisory Board Meeting Summary	July 11, 2000	GPI
AN & AP	Comments from ARC Ecology on the Draft RAP/ROD and the Proposed Plan for the Marsh Crust and Former Subtidal Area (Alameda Point) and for the Marsh Crust and Groundwater (Alameda Annex)	July 19, 2000	ARC Ecology
AP & AN	Comments on Draft RAP/ROD for Marsh Crust and Groundwater at Alameda Facility/Alameda Annex and Marsh Crust in Subtidal Area at Alameda Point	July 19, 2000	EPA
AP	Compiled Comments from West End Concerned Citizens on RAP/ROD	July 24, 2000	CRC
AN & AP	Navy Responses to Department of Toxic Substances Control (DTSC), U.S. Environmental Protection Agency (USEPA) and Restoration Advisory Board (RAB) Comments on Internal Draft RAP/ROD Proposed Plan for the Marsh Crust	July 28, 2000	NAVY
AN & AP	Response to Comments on the Internal Draft RAP/ROD and Draft Proposed Plan for Alameda Annex and Alameda Point	July 31, 2000	NAVY

ADMIN RECORD INDEX: RAP/ROD FOR MARSH CRUST AND GROUNDWATER AT FISC ALAMEDA FACILITY ALAMEDA ANNEX (AN) AND FOR MARSH CRUST AND FORMER SUBTIDAL AREA AT ALAMEDA POINT (AP)

Facility	Document Title	Date	Author
AN & AP	Draft Final RAP/ROD for the Marsh Crust and Groundwater at Fleet and Industrial Supply Center Oakland (FISCO) Alameda Facility/Alameda Annex and for the Marsh Crust and Former Subtidal Area at Alameda Point	August 18, 2000	NAVY
AN & AP	Comments on Draft Final Remedial Action Plan (RAP)/Record of Decision (ROD) for Marsh Crust and Groundwater at Alameda Annex and Former Subtidal Area at Alameda Point	August 30, 2000	EPA
AN & AP	Comments on Draft Final RAP/ROD for Marsh Crust and Groundwater at Alameda Annex and Former Subtidal Area at Alameda Point	September 1, 2000	DTSC
AN & AP	Navy Responses to Review Comments on the Draft Final Remedial Action Plan/Record of Decision (RAP/ROD) for the Marsh Crust and Groundwater at Alameda Facility Alameda Annex and Alameda Point	September 18, 2000	NAVY
AP & AN	Comments on Revised Draft Final Remedial Action Plan/Record of Decision for Marsh Crust and Groundwater at Alameda Facility/Alameda Annex and Marsh Crust in Subtidal Area at Alameda Point	October 17, 2000	DTSC

APPENDIX D

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NEGATIVE DECLARATION

(48 Pages)

FINAL NEGATIVE DECLARATION
for
Remedial Action Plan for the Marsh Crust at the
Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex
and the Marsh Crust and Former Subtidal Area at Alameda Point

Project Proponent:

U.S. Navy
Southwest Division, Naval Facilities Engineering Command

Contact: Michael McClelland
BRAC Environmental Coordinator, Alameda Point
Southwest Division, Naval Facilities Engineering Command
BRAC Office (Code 06CA.MM)
1230 Columbia Street, Suite 1100
San Diego, CA 92101-8517
619-532-0965

Project Description:

The project is adoption of a *Remedial Action Plan* (RAP) that would establish a remedy for hazardous substances found at depth beneath the former Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISC Annex) and Alameda Naval Air Station (Alameda Point), as shown in Exhibits 1 and 2. This remedy establishes restrictions on future excavation, and would bind all future property owners to these restrictions by recordation of a covenant on this property. The remedy addresses a portion of a deep layer of historical contaminated sediment known as "marsh crust" which extends across approximately 727 acres of the former Alameda Naval Air Station and the FISC Annex. The remedy is the final, comprehensive remedial action to address the marsh crust at the FISC Annex and the marsh crust and former subtidal area at Alameda Point. The remedy is not the final decision for any specific parcel or group of parcels at either facility. Either the determination that "all necessary remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer, ..." as provided under Section 120(h)(3)(A)(ii)(I) of CERCLA or, in the case of early transfers, the determinations required by Section 120(h)(3)(C)(i) of CERCLA, will be made at a date subsequent to the date of issuance of this RAP/ROD and prior to the conveyance of individual parcels.

The FISC Annex is not on the National Priorities List (NPL), and the marsh crust was excluded from the NPL for Alameda Point. Consequently, approval is being taken by the Department of Toxic Substances Control (DTSC) under authority provided in Chapter 6.8 of the California Health and Safety Code (H&SC). This Negative Declaration is being prepared by DTSC

pursuant to the requirements of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq) and accompanying Guidelines (Code of California Regulations, Section 15000 et seq).

Background

Approval of this project and execution of the covenant in themselves constitute a decision, but do not specifically grant a permit for any physical action. It does require that any person proposing to excavate soil in the marsh crust secure approval (in effect a "permit") from DTSC, except where the covenant allows for the City of Alameda to permit excavation. Such approval from DTSC will be based solely on a demonstration that the soil in question does not contain PAHs above the California Modified USEPA Region IX Preliminary Remediation Goals in effect at the time of the request for approval, or upon demonstration that the soil will be disposed at a facility authorized to accept such waste for disposal.

The FISC Annex closed in 1998; Alameda Naval Air Station closed in 1997. The air station was renamed Alameda Point by the City of Alameda, which is negotiating a conveyance of the property to the city from the Navy. While marsh crust exists beyond the boundary of Navy-owned property, this remedy applies only to marsh crust under the FISC Annex and Alameda Point.

Manufactured gas plants and an oil refinery which were located near the future location of the FISC Annex and Alameda Point operated from the late 1800s into the 1920s. These facilities are believed to have discharged petroleum waste to adjacent marshlands during their operation. The discharge was rich in semivolatile organic compounds, including polycyclic aromatic hydrocarbons (PAH). The waste spread over much of the surface of the surrounding marsh and was deposited on the marsh surface through tidal actions, leaving a layer of contaminated sediment under what would later become the Alameda Naval Air Station. Fill material, dredged during improvement of the Oakland Inner Harbor and surrounding San Francisco Bay sediments, was placed as fill beginning in 1887, and encapsulated the former marsh crust under the fill (IT Corporation, 1999a. *Environmental Baseline Survey Comprehensive Guide. History of NAS Alameda and Alameda Point* (March, 1999)).

Borings drilled at Alameda Point and the FISC Annex have encountered marsh crust and related deposits over a large geographic area that exceeds 700 acres (TetraTech EM Inc., 1999, *Operable Unit 1 Remedial Investigation Report*; IT Corporation, 1999a, *Environmental Baseline Survey Comprehensive Guide. History of NAS Alameda and Alameda Point*). Concentrations of PAH in the soil such as benzo(a)pyrene, a highly carcinogenic compound, commonly exceed the residential preliminary remediation goal of 0.056 mg/kg by several orders of magnitude. Based on the conceptual model of how the marsh crust was deposited, the marsh crust is believed to exist throughout the area in a reasonably predictable, planar zone, but it may not exist as a continuous layer because of the presence of tidal channels and other phenomena affecting the original deposition. The interface between fill material and the historic surface of the marsh or subtidal deposits is inferred to be present at depths of four to greater than fifteen feet below ground surface at the FISC Annex and Alameda Point Marsh crust as originally deposited may therefore be present at depths of four to greater than fifteen feet. The remedy assumes that this is

the case.

Based on the conceptual model for the deposition of the marsh crust, the contamination at the FISC Annex and Alameda Point pre-dates Navy presence. Nevertheless, the Navy as landowner has accepted responsibility for evaluating and proposing necessary remedies for the contamination.

DTSC believes that there is no set of rational investigation objectives that can be identified which would lead to a conclusive data set. DTSC therefore believes that it is impractical to further investigate the marsh crust for the purpose of more precisely delineating the areas where marsh crust is or is not present at Alameda Point and the FISC Annex. There is a reasonable probability that only a portion of the area within the conceptual model boundary of the marsh crust is actually contaminated. However, the precise locations of marsh crust areas not affected by contamination cannot be identified in any reasonable investigation scenario adequately to allow for reduction of the restriction contained in the proposed remedy.

It is also possible that some soils from the historic marsh or the subtidal areas were disturbed during fill or other unknown activities, and may have been deposited at depths other than that of the historic marsh or subtidal soil surface. This possibility cannot be reliably proved or rationally investigated, as there are no criteria for sampling locations or depths upon which a sampling plan could be based. However, since marsh crust has not been detected at depths inconsistent with the depositional model, DTSC considers the likelihood of substantial marsh crust or subtidal soil deposits at depths different from those of the original marsh crust or subtidal surface to be minimal. In the conceptual model, the marsh crust is a discrete depositional layer of a unique and devinable soil type. In the model, some areas within this definable layer are contaminated The processes that resulted in the deposition of the marsh crust layer and the processes that resulted in contamination in some regions of the marsh crust are distinct from processes that resulted in the presence of other soil layers and processes that may have resulted in contamination of those other soil layers. Because the marsh crust layer, with its associated contamination, is unique and independent in extent, location, and deposition, DTSC believes that evaluation of a remedy addressing only marsh crust is warranted. DTSC therefore is not proposing to include soil at other depths in the restrictive part of this remedy.

Other chemicals present at the FISC Annex and Alameda Point include polycyclic aromatic hydrocarbons (PAH), pesticides, and heavy metals which may have been present in the fill as dredged, or may have been introduced after the fill was placed. Many of these compounds are carcinogenic or can produce other adverse health effects, and where they are present in concentrations that exceed health-protective levels, will be remediated as necessary under a separate decision document.

Qualitative and quantitative ecological risk assessments conducted as part of the remedial investigation (PRC, 1996; Tetra Tech EM Inc., 1999) found that there are no potential risks to terrestrial or aquatic receptors because the area has (1) limited and unsuitable habitat; (2) contaminants found in deep soils (marsh crust) have limited potential for exposure to terrestrial biota (deeper than most animal burrows); and (3) PAH compounds are not highly soluble, and, based on fate and transport modeling, have a low probability for transport to adjacent surface

waters.

The proposed remedy to address and control possible releases of PAH from the marsh crust to the surface is a covenant, to restrict specific use of the property (environmental restrictions), between the City of Alameda as the future owner of the property, and DTSC. The restriction involves controls on excavation and management of soil excavated from the subsurface marsh crust layer and brought to the surface through construction or other activities. Pursuant to California Civil Code section 1471(c), DTSC has determined that the covenant is reasonably necessary to protect present or future public health and safety or the environment. DTSC therefore intends that excavation of contaminated soil be restricted. The restrictions shall run with the land, pass with each and every portion of the property, and be enforceable by DTSC. The restrictions shall be incorporated by reference in each and all deeds, leases and subleases of any portion of the property. This restriction is not intended, nor is it likely to restrict, induce, or otherwise affect general land uses, but rather applies to the marsh crust irrespective of any and all future land uses.

The covenant will prohibit engaging in any excavation below a threshold depth that is not performed in accordance with a permit approved and issued pursuant to the City of Alameda excavation ordinance. If the excavation ordinance is repealed, DTSC approval will be required for all excavation. Disposal of extracted ground water from construction site dewatering into the waters of the state is prohibited except in compliance with the requirements of the Regional Water Quality Control Board. The covenant will be executed by the City of Alameda and DTSC and shall be recorded by the City of Alameda.

A covenant to restrict specific use of property is an institutional control that is recognized in the H&SC Sections 25222.1 and 25355.5 as an appropriate remedy when more active response actions are determined not to be practical. The H&SC requires that when evaluating institutional controls as remedial alternatives, the adequacy and reliability of the controls must be evaluated. Further, as with all remedies implemented pursuant to the H&SC, 5-year review is required to verify maintenance of the institutional control.

Pursuant to Assembly Bill 871, which became effective on January 1, 1999, DTSC is required to maintain a list of all land use restrictions recorded pursuant to Health and Safety Code sections 25200, 25200.10, 25202.5, 25222.1, 25229, 25230, 25355.5, and 25398.7. At a minimum, this list must provide the street address, or if a street address is not available, an equivalent description of location for a rural location or the latitude and longitude of each property. DTSC is also required to update the list as new land use restrictions are recorded, and make the list available to the public, upon request, and place the list on the DTSC Internet website. DTSC is evaluating our system for tracking the effectiveness of institutional controls, but this evaluation should not delay such remedies, including the one before us. Alternatives to institutional controls, such as excavation of marsh crust, are infeasible. The contaminated layer at depth cannot be removed without incurring onerous and unnecessary cost and disruption to the community. The only other alternative is complete prohibition of any residential use.

A Notice of Determination for a Negative Declaration on a Removal Action Workplan for Marsh

Crust at Parcels 170 and 171 at Alameda Point was filed with the Governor's Office of Planning and Research (OPR) on June 14, 2000. The current project encompasses a larger area and applies the same remedy for marsh crust.

The purpose of this project is solely for the implementation of institutional controls as a remedy for marsh crust and related deposits at the FISC Annex and Alameda Point and for shallow. Any environmental impacts associated with future development are addressed in the Catellus Mixed Use Development Draft Environmental Impact Statement (December 1999) and the Final Environmental Impact Report for the Reuse of Naval Air Station Alameda and the Fleet and Industrial Supply Center, Alameda Annex and Facility (March 2000).

Project Location:

The project comprises two adjoining closed naval installations located in Alameda, California (see Exhibits 1 and 2). They are:

(1) Former Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISC Annex), located between Webster Street and Main Street, and between the Oakland Inner Harbor and Atlantic Avenue, northwest of the College of Alameda;

(2) Former Alameda Naval Air Station, located at the western end of Alameda, west and south of the FISC Annex, at the intersection of Main Street and Atlantic Avenue, and surrounded on the north, west, and south by the Oakland Inner Harbor and San Francisco Bay.

Findings of Significant Effect on Environment:

The Department has determined that the proposed project could not have a significant effect on the environment. This finding is supported by the Special Initial Study prepared by the California Environmental Protection Agency, Department of Toxic Substances Control (attached).

Mitigation Measures:

No mitigation measures have been added. The proposed remedy to address and control possible releases of PAH from the marsh crust to the surface is a covenant, to restrict specific use of the property (environmental restrictions), between the City of Alameda as the future owner of the property, and DTSC. The covenant will prohibit engaging in any excavation below a threshold depth that is not performed in accordance with a permit approved and issued pursuant to the City of Alameda excavation ordinance. If the excavation ordinance is repealed, DTSC approval will be required for all excavation. The covenant will be executed by the City of Alameda and DTSC and shall be recorded by the City of Alameda.

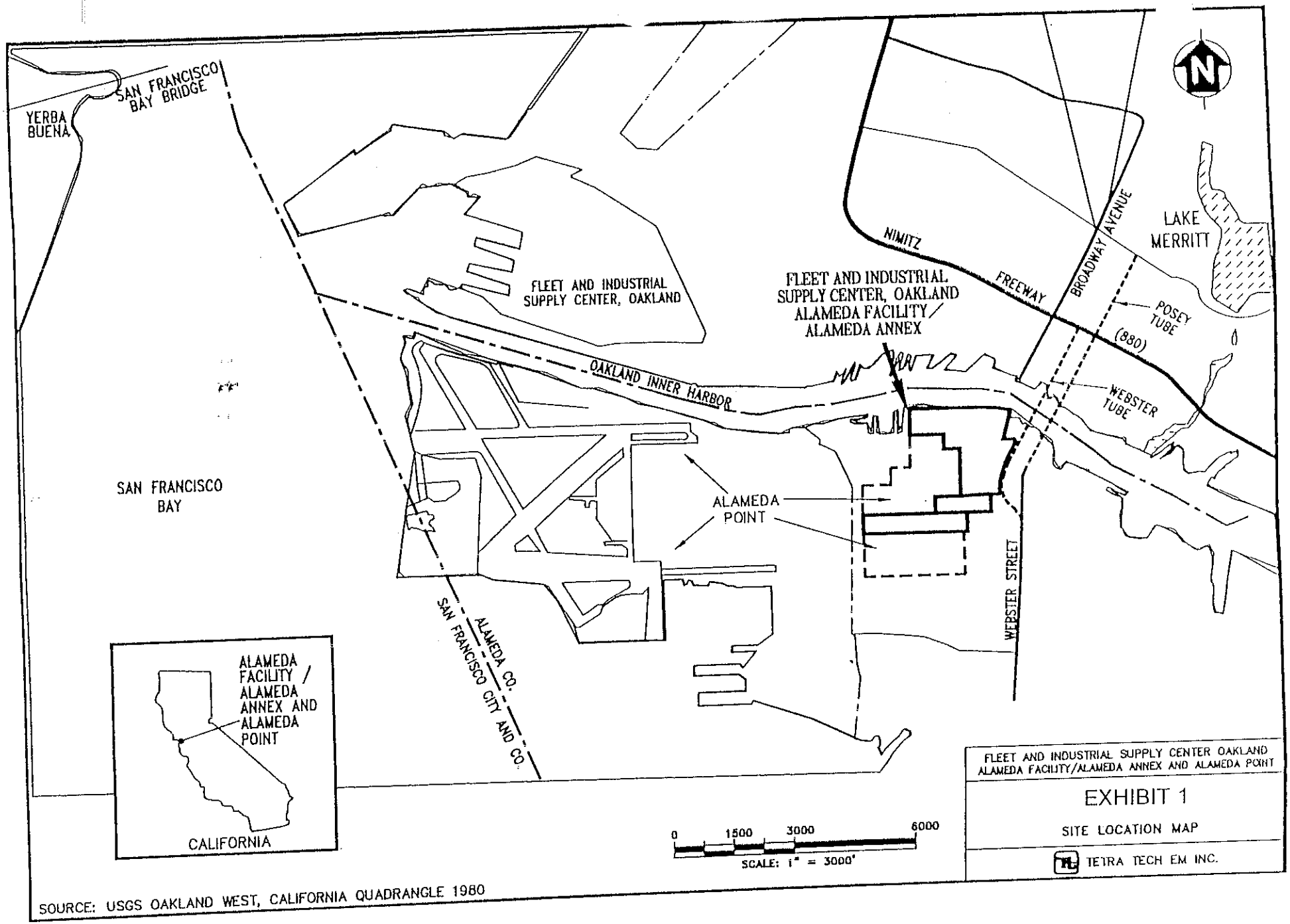
Signature Mary Rose Bassi Date 1/11/01
Project Manager

Signature A. J. Landis Date 2-2-01
Branch Chief

FINAL NEGATIVE DECLARATION
for
Remedial Action Plan for the Marsh Crust at the
Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex
and the Marsh Crust and Former Subtidal Area at Alameda Point

RESPONSE TO COMMENTS

DTSC has reviewed the Navy's responses to comments on the Proposed Plan and Draft Remedial Action Plan, and we have concluded that the responses also address comments on the Negative Declaration.



SOURCE: USGS OAKLAND WEST, CALIFORNIA QUADRANGLE 1980

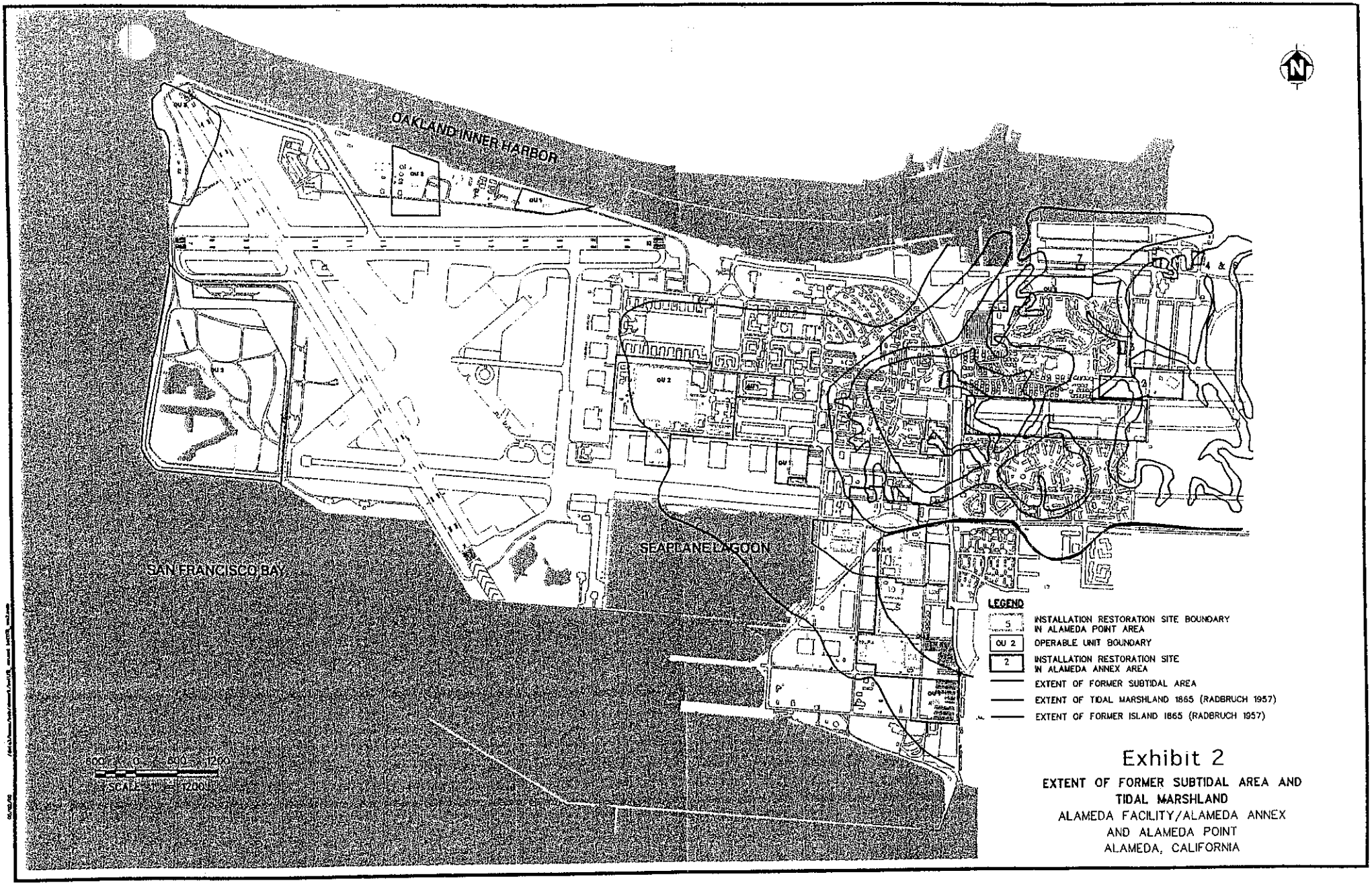


Exhibit 2

EXTENT OF FORMER SUBTIDAL AREA AND TIDAL MARSHLAND

ALAMEDA FACILITY/ALAMEDA ANNEX AND ALAMEDA POINT
ALAMEDA, CALIFORNIA

Cal/EPA Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721
510-540-3767

CALIFORNIA ENVIRONMENTAL QUALITY ACT

SPECIAL INITIAL STUDY
For
Remedial Action Plan for the Marsh Crust and Groundwater at the
Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex
and the Marsh Crust and Former Subtidal Area at Alameda Point

The Department of Toxic Substances Control (DTSC) has completed the following Special Initial Study for this project in accordance with the California Environmental Quality Act (§ 21000 et seq., California Public Resources Code) and implementing Guidelines (§ 15000 et seq , Title 14, California Code of Regulations). This Special Initial Study has also been used to satisfy the requirements of § 711.4, Fish and Game Code and § 753.5, Title 14, Code of California Regulations relating to filing of environmental fees.

I. PROJECT INFORMATION

ject Name: Remedial Action Plan for the Marsh Crust and Groundwater at the Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex and for the Marsh Crust and Former Subtidal Area at Alameda Point

Site Location: City of Alameda, Alameda County (see Exhibit 1, Site Location)

Contact Person/ Address/ Phone Number: Michael McClelland / Southwest Division, Naval Facilities Engineering Command / BRAC Office (Code 06CA.MM) / 1230 Columbia Street, Suite 1100, San Diego, CA 92101-8517 / 619-532-0965

Project Description

The project is adoption of a *Remedial Action Plan* (RAP) that would establish a remedy for hazardous substances found at depth beneath the former Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISC Annex) and Alameda Naval Air Station (Alameda Point), as shown in Exhibits 1 and 2. The RAP would also establish a remedy for hazardous substances in the shallow groundwater beneath the former FISC Annex. This remedy establishes restrictions on future excavation and use of shallow groundwater, and would bind all future property owners to these restrictions by recordation of a covenant on this property. The remedy addresses a portion of a deep layer of historical contaminated sediment known as "marsh crust" which extends across approximately 727 acres of the former Alameda Naval Air Station and the FISC Annex. The FISC Annex is not on the National Priorities List (NPL), and the marsh crust was excluded from the NPL for Alameda Point. Consequently, approval is being taken by the Department of Toxic Substances ontrol (DTSC) under authority provided in Chapter 6.8 of the California Health and Safety Code (H&SC). This Initial Study is being prepared by DTSC pursuant to the requirements of the California Environmental

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Quality Act (Public Resources Code, Section 21000 et seq) and accompanying Guidelines (Code of California Regulations, Section 15000 et seq).

Background

Approval of this project and execution of the covenant in themselves constitute a decision, but do not specifically grant a permit for any physical action. It does require that any person proposing to excavate soil in the marsh crust secure approval (in effect a "permit") from DTSC, except where the covenant allows for the City of Alameda to permit excavation. Such approval from DTSC will be based solely on a demonstration that the soil in question does not contain PAHs above the California Modified USEPA Region IX Preliminary Remediation Goals in effect at the time of the request for approval, or upon demonstration that the soil will be disposed at a facility authorized to accept such waste for disposal. Extraction of shallow groundwater at the FISC Annex for domestic use or consumption is prohibited.

The remedy addresses two types of contamination, described below:

> Marsh Crust: The marsh crust is a deep layer of historical contaminated sediment which is known to underlie certain areas of the FISC Annex and Alameda Point.
>
> Shallow Groundwater at the FISC Annex: Organic and inorganic chemicals are present in groundwater in the shallow water-bearing zone beneath the FISC Annex. No chemicals were detected at levels of concern in the deep groundwater. The source of the contamination in the shallow groundwater beneath the FISC Annex is not known; however, for the purposes of the RAP, the contamination is assumed to originate at least in part from releases of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances. Some floating product that is not a CERCLA hazardous substance is present in the shallow groundwater. This contamination is being addressed under a separate petroleum cleanup action in cooperation with the California Regional Water Quality Control Board, San Francisco Region.

The FISC Annex closed in 1998; Alameda Naval Air Station closed in 1997. The air station was renamed Alameda Point by the City of Alameda, which is negotiating a conveyance of the property to the city from the Navy. While marsh crust exists beyond the boundary of Navy-owned property, this remedy applies only to marsh crust under the FISC Annex and Alameda Point.

Manufactured gas plants and an oil refinery which were located near the future location of the FISC Annex and Alameda Point operated from the late 1800s into the 1920s. These facilities are believed to have discharged petroleum waste to adjacent marshlands during their operation. The discharge was rich in semivolatile organic compounds, including polycyclic aromatic hydrocarbons (PAH). The waste spread over much of the surface of the surrounding marsh and was deposited on the marsh surface through tidal actions, leaving a layer of contaminated sediment under what would later become the Alameda Naval Air Station. Fill material, dredged during improvement of the Oakland Inner Harbor and surrounding San Francisco Bay sediments, was placed as l beginning in 1887, and encapsulated the former marsh crust under the fill (IT Corporation, 1999a. *Environmental Baseline Survey Comprehensive Guide. History of NAS Alameda and Alameda Point* (March,

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1999)).

Borings drilled at Alameda Point and the FISC Annex have encountered marsh crust and related deposits over a large geographic area that exceeds 700 acres (TetraTech EM Inc., 1999, *Operable Unit 1 Remedial Investigation Report*; IT Corporation, 1999a, *Environmental Baseline Survey Comprehensive Guide: History of NAS Alameda and Alameda Point*). Concentrations of PAH in the soil such as benzo(a)pyrene, a highly carcinogenic compound, commonly exceed the residential preliminary remediation goal of 0.056 mg/kg by several orders of magnitude. Based on the conceptual model of how the marsh crust was deposited, the marsh crust is believed to exist throughout the area in a reasonably predictable, planar zone, but it may not exist as a continuous layer because of the presence of tidal channels and other phenomena affecting the original deposition. The interface between fill material and the historic surface of the marsh or subtidal deposits is inferred to be present at depths of four to greater than fifteen feet below ground surface at the FISC Annex and Alameda Point Marsh crust as originally deposited may therefore be present at depths of four to greater than fifteen feet. The remedy assumes that this is the case.

Based on the conceptual model for the deposition of the marsh crust, the contamination at the FISC Annex and Alameda Point pre-dates Navy presence. Nevertheless, the Navy as landowner has accepted responsibility for evaluating and proposing necessary remedies for the contamination.

SC believes that there is no set of rational investigation objectives that can be identified which would lead to a conclusive data set. DTSC therefore believes that it is impractical to further investigate the marsh crust for the purpose of more precisely delineating the areas where marsh crust is or is not present at Alameda Point and the FISC Annex. There is a reasonable probability that only a portion of the area within the conceptual model boundary of the marsh crust is actually contaminated. However, the precise locations of marsh crust areas not affected by contamination cannot be identified in any reasonable investigation scenario adequately to allow for reduction of the restriction contained in the proposed remedy.

It is also possible that some soils from the historic marsh or the subtidal areas were disturbed during fill or other unknown activities, and may have been deposited at depths other than that of the historic marsh or subtidal soil surface. This possibility cannot be reliably proved or rationally investigated, as there are no criteria for sampling locations or depths upon which a sampling plan could be based. However, since marsh crust has not been detected at depths inconsistent with the depositional model, DTSC considers the likelihood of substantial marsh crust or subtidal soil deposits at depths different from those of the original marsh crust or subtidal surface to be minimal. In the conceptual model, the marsh crust is a discrete depositional layer of a unique and devinable soil type. In the model, some areas within this definable layer are contaminated. The processes that resulted in the deposition of the marsh crust layer and the processes that resulted in contamination in some regions of the marsh crust are distinct from processes that resulted in the presence of other soil layers and processes that may have resulted in contamination of those other soil layers. Because the marsh crust layer, with its associated contamination, is unique and independent in extent, location, and deposition, DTSC believes that evaluation of a remedy addressing only marsh crust is warranted. DTSC therefore is not proposing to include soil at other depths in the restrictive part of this remedy.

Other chemicals present at the FISC Annex and Alameda Point include polycyclic aromatic hydrocarbons (PAH), pesticides, and heavy metals which may have been present in the fill as dredged, or may have been introduced after the fill was placed. Many of these compounds are carcinogenic or can produce other adverse health effects, and where they are present in concentrations that exceed health-protective levels, will be remediated as necessary under a separate decision document.

The "shallowest groundwater zone" is in the fill at the FISC Annex, is first encountered at depths from 4 to 8 feet below ground surface (bgs) and extends to a maximum depth of approximately 20 feet bgs. The shallowest groundwater zone does not include any deeper groundwater zone that is hydraulically separated from the fill. In particular, the shallowest groundwater zone does not include the "Merritt Sand" zone, which is first encountered at approximately 10 to 105 feet bgs and is hydraulically separated from the fill by Bay Mud, the thickness of which ranges from 5 to 95 feet at the Property. The shallowest groundwater zone is currently not usable for drinking water because of the presence of naturally occurring inorganic constituents (total dissolved solids and some metals). Because of this intrinsic use limitation of the groundwater, the contamination of organic constituents (volatile organic compounds, TPH, and PAHs) related to former activities at or in the vicinity the FISC Annex, may, at this time, remain in place provided there are sufficient controls and restrictions to protect the public health, safety, and the environment.

Human health risk assessments (HHRA) were conducted during the remedial investigation for several specific s at the FISC Annex and Alameda Point (PRC Environmental Management, Inc., 1996; TetraTech EM Inc., 1999) and for groundwater at the FISC Annex (PRC, 1996; NewFields, 2000). Consistent with U.S. EPA and DTSC guidelines for conducting HHRA, the risk assessment found that there is no pathway to humans from the PAH in the marsh crust because of its depth. The HHRA determined that workers could be exposed to possible PAH contamination during construction of building foundations and utility work. However, DTSC has concluded that such exposures are unlikely to result in significant risk. The PAH may pose an unacceptable risk to human health and the environment if excavated marsh crust materials are brought to the ground surface and handled in an uncontrolled manner (e.g., if contaminated marsh crust soil is placed at the surface as a result of construction activities, thus creating an exposure pathway). Because shallow groundwater has been found to have no beneficial uses as drinking water and has limited use for agricultural or industrial supply the HHRA determined that the main route of human exposure is by volatilization of VOCs into indoor air spaces. Subsequent evaluation of soil gas concentrations and modeling results indicated that potential risks due to volatilization into indoor air spaces are within a risk-management range as defined by U. S. EPA Region IX. After completion of the RI, additional pathways for human exposure to contaminants in shallow groundwater became evident, including (1) the potential exposure of humans to groundwater through uses other than consumption and (2) the potential exposure of children and adult workers at a location proposed for future use as a school site to VOCs in indoor air. A supplemental HHRA was conducted using scenarios based on car wash workers and landscape workers using groundwater from the shallow aquifer to evaluate the potential risk due to exposure of adults to groundwater brought to the surface for irrigation or industrial purposes. The supplemental HHRA also evaluated children and adult workers to evaluate the potential risk due to exposure to indoor air that could be contaminated with VOCs that may volatilize from the contaminated ground water. In all cases, Hazard Indices and cancer risks were within or below the risk-management range as defined by U. S. EPA Region IX. The supplemental HHRA concluded that "there is no scientific basis for restricting either the potential non-potable beneficial uses of the ground water at the site or the proposal for placement of a school

near the site as an acceptable land-use option " This HHRA is not intended to meet the requirements of the California Education Code Section 17210 et seq. When a school site is formally proposed, the California Education Code will be triggered.

Qualitative and quantitative ecological risk assessments conducted as part of the remedial investigation (PRC, 1996; Tetra Tech EM Inc., 1999) found that there are no potential risks to terrestrial or aquatic receptors because the area has (1) limited and unsuitable habitat; (2) contaminants found in deep soils (marsh crust) have limited potential for exposure to terrestrial biota (deeper than most animal burrows); and (3) PAH compounds are not highly soluble, and, based on fate and transport modeling, have a low probability for transport to adjacent surface waters.

The proposed remedy to address and control possible releases of PAH from the marsh crust to the surface is a covenant, to restrict specific use of the property (environmental restrictions), between the City of Alameda as the future owner of the property, and DTSC. The restriction involves controls on excavation and management of soil excavated from the subsurface marsh crust layer and brought to the surface through construction or other activities. Pursuant to California Civil Code section 1471(c), DTSC has determined that the covenant is reasonably necessary to protect present or future public health and safety or the environment. DTSC therefore intends that excavation of contaminated soil be restricted. The restrictions shall run with the land, pass with each and every portion of the property, and be enforceable by DTSC. The restrictions shall be incorporated by reference in each and all deeds, leases and subleases of any portion of the property. This restriction is not intended, nor is it likely to restrict, induce, or otherwise affect general land uses, but rather applies to the marsh crust irrespective of any and all future land uses.

The covenant will prohibit engaging in any excavation below a threshold depth that is not performed in accordance with a permit approved and issued pursuant to the City of Alameda excavation ordinance. If the excavation ordinance is repealed, DTSC approval will be required for all excavation. At the FISC Annex, the covenant will also prohibit construction of any water well screened for the extraction of water from the shallowest groundwater zone (as defined above) and extraction (except for necessary construction site dewatering), utilization or consumption of water from the shallowest groundwater zone for use other than irrigation or emergency use (e.g. firefighting). Disposal of extracted ground water from construction site dewatering into the waters of the state is prohibited except in compliance with the requirements of the Regional Water Quality Control Board. The covenant will be executed by the City of Alameda and DTSC and shall be recorded by the City of Alameda.

A covenant to restrict specific use of property is an institutional control that is recognized in the H&SC Sections 25222.1 and 25355.5 as an appropriate remedy when more active response actions are determined not to be practical. The H&SC requires that when evaluating institutional controls as remedial alternatives, the adequacy and reliability of the controls must be evaluated. Further, as with all remedies implemented pursuant to the H&SC, 5-year review is required to verify maintenance of the institutional control.

Pursuant to Assembly Bill 871, which became effective on January 1, 1999, DTSC is required to maintain a list all land use restrictions recorded pursuant to Health and Safety Code sections 25200, 25200.10, 25202.5, 25222.1, 25229, 25230, 25355.5, and 25398.7. At a minimum, this list must provide the street address, or if a

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street address is not available, an equivalent description of location for a rural location or the latitude and longitude of each property. DTSC is also required to update the list as new land use restrictions are recorded, and make the list available to the public, upon request, and place the list on the DTSC Internet website. DTSC is evaluating our system for tracking the effectiveness of institutional controls, but this evaluation should not delay such remedies, including the one before us. Alternatives to institutional controls, such as excavation of marsh crust, are infeasible. The contaminated layer at depth cannot be removed without incurring onerous and unnecessary cost and disruption to the community. The only other alternative is complete prohibition of any residential use.

A Notice of Determination for a Negative Declaration on a Removal Action Workplan for Marsh Crust at Parcels 170 and 171 at Alameda Point was filed with the Governor's Office of Planning and Research (OPR) on June 14, 2000. The current project encompasses a larger area and applies the same remedy for marsh crust, but also includes institutional controls on use of shallow ground water at the FISC Annex.

The purpose of this project is solely for the implementation of institutional controls as a remedy for marsh crust and related deposits at the FISC Annex and Alameda Point and for shallow ground water at the FISC Annex. Any environmental impacts associated with future development are addressed in the Catellus Mixed Use Development Draft Environmental Impact Statement (December 1999) and the Final Environmental Impact Report for the Reuse of Naval Air Station Alameda and the Fleet and Industrial Supply Center, Alameda Annex Facility (March 2000).

Other Agencies Having Jurisdiction Over the Project/ Types of Permits Required:

City of Alameda - Execution of the Covenant between the City of Alameda and DTSC constitutes a decision, but does not specifically grant a permit for any action. Rather, it establishes soil excavation and ground water extraction restrictions on the City as the property owner. The covenant allows DTSC to rely on a City ordinance to ensure that the restrictive provisions and intent of the covenant are met with regard to soil excavation. Approval of excavation requires a permit from the City as long as the excavation ordinance is in effect and is consistent with the provisions of the covenant.

US Navy - The Navy is required to approve a decision document pursuant to the federal CERCLA that provides for institutional controls similar to the decision proposed by DTSC. Among other things, the decision may be used by the Navy to support a Finding of Suitability for Transfer (FOST) for FISC Annex and Alameda Point property. In the FOST, the Navy must certify that all remedial actions have been taken, and they could support this determination in full or in part by implementing the remedy described in their decision document. DTSC has no approval authority over the FOST, but may offer comments on it. The Navy is required to place a media notice inviting public comment on a FOST. DTSC's decision is not dependent on the Navy's decision or on completion of the FOST, as the remedy is necessary under State law irrespective of the Navy's decision in this instance or of who owns the property.

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II. DISCRETIONARY APPROVAL ACTION BEING CONSIDERED BY DTSC

☐ Initial Permit Issuance	☒ Removal Action Plan
☐ Permit Renewal	☐ Removal Action Workplan
☐ Permit Modification	☐ Interim Removal
☐ Closure Plan	☐ Other (Specify)
☐ Regulations	_____

Program/ Region Approving Project: Office of Military Facilities, Site Mitigation Branch, Berkeley Office

Contact Person/ Address/ Phone Number: Mary Rose Cassa/ 700 Heinz Ave., Ste. 200, Berkeley CA 94122/ 510-540-3767

III. ENVIRONMENTAL CONDITIONS POTENTIALLY AFFECTED

boxes checked below identify environmental factors which were found in the following ENVIRONMENTAL SETTING/IMPACT ANALYSIS section to be potentially affected by this project, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigated".

☐ Earth	☐ Risk of Upset	☐ Aesthetics
☐ Air	☐ Transportation/ Circulation	☐ Cultural/ Paleontological Resources
☐ Surface and Groundwater	☐ Public Services	☐ Cumulative Effects
☐ Plant Life	☐ Energy	☐ Population
☐ Animal Life	☐ Utilities	☐ Housing
☐ Land Use	☐ Noise	☐ Recreation
☐ Natural Resources	☐ Public Health and Safety	☒ None identified

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IV. ENVIRONMENTAL SETTING/ IMPACT ANALYSIS

The following pages provide a brief description of the physical environmental conditions which exist within the area affected by the proposed project and an analysis of whether or not those conditions will be potentially impacted by the proposed project. Preparation of the Environmental Setting and Impact Analysis sections follows guidance provided in the DTSC's Workbook For Conducting Initial Studies Under the California Environmental Quality Act (CEQA), May 1994 (Workbook).

This Special Initial Study also contains evidence to support the claim that this project will have absolutely no adverse impact on fish or wildlife or the habitat that on which the fish or wildlife depend pursuant to the provisions of Title 14, CCR § 753.5 (d). Areas of special concern to fish and wildlife are highlighted within the appropriate environmental factor in the following section. A list of references used to support the following discussion and analysis are contained in Attachment A and are referenced within each environmental factor discussed below.

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1. Earth (Workbook; page 11)

Description of Environmental Setting:

Surface materials at the site are artificial fill consisting of sands, some clay, minor gravels, and organic matter up to approximately 20 feet thick overlying blue-gray muds and fine sands. The underlying muds, sands, and organic matter originated from the historic intertidal deposits adjacent to the north shore of Alameda Island prior to placement of fill.

Marsh Crust is a term applied to former "encrusted" tidal marsh deposits which existed prior to placement of fill at the margins of San Francisco Bay. Environmental investigations have demonstrated that the former tidal marsh deposits located at the interface between the native bay margin sediments and the artificial fill are contaminated with SVOC and TPH compounds. These compounds are thought to be related to discharges from industrial activities in the area (e.g., oil refining, gas manufacturing) which became intermingled with the marsh deposits as a result of tidal action. It is thought that contaminated marsh crust deposits are located within the former tidal zone; i.e, contaminated deposits are not anticipated to be found at a level higher than the original high tide level (mean higher high tide). The FISC Annex and Alameda Point were was constructed on top marshlands adjacent to San Francisco Bay, interlaced with numerous tidal channels. Borings drilled at Alameda nt and the FISC Annex have encountered marsh crust over a large geographic area that exceeds 700 acres. Concentrations of benzo(a)pyrene, a highly carcinogenic compound, commonly exceed the residential preliminary remediation goal of 0.056 mg/kg by several orders of magnitude. Based on the conceptual model of how the marsh crust was deposited, the marsh crust is believed to exist throughout the area in a reasonably predictable, planar zone, but it may not exist as a continuous layer because of the presence of tidal channels and other phenomena affecting the original deposition. The interface between fill material and the historic surface of the marsh or subtidal deposits is inferred to be present at depths of four to greater than fifteen feet below ground surface at the FISC Annex and Alameda Point. Marsh crust as originally deposited may therefore be present at depths of four to greater than fifteen feet.

Other chemicals present at the site include polycyclic aromatic hydrocarbons (PAH) and pesticides, which may have been present in the fill as dredged, or may have been introduced after the fill was placed. Many of these compounds are carcinogenic or can produce other adverse health effects, and where they are present in concentrations that exceed health-protective levels, will be remediated as necessary under a separate decision document.

Ref: (a) Bay Mud Developments and Related Structural Foundations; (b) Operable Unit 1 Remedial Investigation Report; (c) Final Remedial Investigation Report, Fleet and Industrial Supply Center; (d) Final Baseline Human Health Risk Assessment

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Analysis of Potential Impacts:

[Analysis must include the following concerns: 1) Changes to any riparian land or wetlands under state or federal jurisdiction?; 2) Changes to soil required to sustain habitat for fish and wildlife?]

It is reasonable to assume that soils from the historic marsh or the subtidal areas were disturbed during fill or other unknown activities, and may have been deposited at depths other than that of the historic marsh or subtidal soil surface. This possibility cannot be reliably proved or rationally investigated, as there are no criteria for sampling locations or depths upon which a sampling plan could be based. However, since marsh crust has not been detected at depths inconsistent with the conceptual model, DTSC considers the likelihood of substantial marsh crust or subtidal soil deposits at depths different from those of the original marsh crust or subtidal surface to be minimal. In the conceptual model, the marsh crust is a discrete depositional layer of a unique and definable soil type. In the model, some areas within this definable layer are contaminated. The processes that resulted in the deposition of the marsh crust layer and the processes that resulted in contamination in some regions of the marsh crust are distinct from processes that resulted in the presence of other soil layers and processes that may have resulted in contamination of those other soil layers. Because the marsh crust layer, with its associated contamination, is unique and independent in extent, location, and deposition, DTSC believes that evaluation of a remedy addressing only marsh crust is warranted. DTSC therefore is not proposing to include soil at other depths in the restrictive part of this remedy.

...e proposed remedy is the enactment of a land use covenant an institutional control which would establish restrictions on future excavation and use of shallow groundwater at the property site. Implementation of the proposed institutional controls will not involve any direct actions resulting in the movement of soil, changes to the ground surface, or geologic substructures. No active engineering or construction would be required. Therefore, DTSC does not anticipate that this project, as proposed, will result in any impact to the earth, or any adjacent riparian land, wetlands, or soils required to sustain habitat for fish or wildlife.

Ref: (a) Remedial Action Plan; (b) Operable Unit 1 Remedial Investigation Report; (c) Final Remedial Investigation Report, Fleet and Industrial Supply Center; (d) Final Baseline Human Health Risk Assessment; (e) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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2. Air (Workbook; page 13)

Description of Environmental Setting:

a) Region

The San Francisco Bay Region experiences one of the mildest climates in North America. Winters are characterized by prevailing cool winds from the northwest moderated by the Pacific Ocean, so temperatures rarely reach freezing. The Bay Area is a large shallow air basin ringed by hills which taper into a number of sheltered valleys around the perimeter. Two primary atmospheric outlets exist. One is through the strait known as the Golden Gate, which is a direct outlet to the ocean. The second extends to the northeast, along the west delta region of the Sacramento and San Joaquin Rivers.

b) Project Site Vicinity

The project site is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. The BAAQMD's Bay Area Clean Air Plans (CAPs) contain district-wide control measures to reduce carbon monoxide and ozone precursor emissions. The State standards these pollutants are more stringent that the national standards. There is currently no activity at the site generating either mobile or stationary air emissions. The site is occupied by former Navy housing units which have been vacant since 1997.

Ref: *Catellus Mixed Use Development Draft Environmental Impact Statement*, December 1999, City of Alameda

Analysis of Potential Impacts:

[Analysis must address the following concerns: Degradation of any air resources which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that air?]

Implementation of the proposed institutional controls as a remedy will not authorize excavation into contaminated soil and therefore will not create impacts to air quality. The covenant restrictions require the preparation of site specific health and safety plans by a certified industrial hygienist to protect workers and the general public for future excavation activities associated with this site. Covenant restrictions also require that all future excavation and materials handling activities be conducted in accordance with applicable Best Management Practices.

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DTSC has determined that the proposed remedy will not result in degradation of air resources. Implementation of the institutional controls will not have any effect on air emissions or ambient air quality beyond current conditions, nor will it alter movement, moisture, or temperature, or result in any change of climate, either locally or regionally. No emissions from mobile or stationary sources will result from the adoption of the institutional control proposed by DTSC, and no earthmoving will take place.

Ref: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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3. Surface and Ground Water (Workbook; page 17)

Description of Environmental Setting:

Based on available data, shallow groundwater has been determined to occur at depths ranging from 2 to 15 feet below the ground surface in fill materials and Bay Mud. The Alameda aquifer occurs below the site at a depth ranging from 100 to 2000 feet below the ground surface. The hydrogeology at the project site is characterized by five hydrostratigraphic units that include the water-bearing Merritt Sand and Posey formations (which under lie the fill), Bay Mud formation, and the deeper Alameda formation. The Alameda formation aquifer is separated by a silty-clay unit, the San Antonio Formation. Because of its high silty-clay content, the Bay Mud formation likely provides hydrologic separation of the fill from the underlying Merritt Sand and Posey formations. Tidal influence has been detected close to the existing shoreline, but little or no tidal influence is anticipated at the project site, located at least 0.4 mile from the nearest shoreline. Surface runoff from the project site is largely controlled by a storm drain system which mainly discharges into San Francisco Bay. A jurisdictional wetland of the United States has been delineated by the U.S. Army Corps of Engineers in a drainage ditch running alongside Main Street, west of the FISC Annex.

The "shallowest groundwater zone" is in the fill at the FISC Annex, is first encountered at depths from 4 to 8 below ground surface (bgs), and extends to a maximum depth of approximately 20 feet bgs. The shallowest groundwater zone does not include any deeper groundwater zone that is hydraulically separated from the fill. In particular, the shallowest groundwater zone does not include the Merritt Sand zone, which is first encountered at approximately 25 feet bgs and is hydraulically separated from the fill by Bay Mud, the thickness of which ranges from 25 to 80 feet at the FISC Annex. The shallowest groundwater zone is currently not usable for drinking water because of the presence of naturally occurring inorganic constituents (total dissolved solids and some metals). Because of this intrinsic use limitation of the groundwater, the contamination of organic constituents (volatile organic compounds, TPH, and PAHs) related to former activities at or in the vicinity the FISC Annex, may, at this time, remain in place provided there are sufficient controls and restrictions to protect the public health, safety, and the environment.

Ref: (a) Remedial Action Plan; (b)Environmental Baseline Survey/Phase 2B Sampling Draft Final Parcel-specific Data Evaluation Summaries; (c) Final Remedial Investigation Report, Fleet and Industrial Supply Center; (d) Alameda Point Administration, City of Alameda (e) Basewide Environmental Baseline Survey Report

Analysis of Potential Impacts:

[The analysis must address the following concerns: 1) Changes to riparian land, rivers, streams, watercourses and wetlands under state and federal jurisdiction?; or 2) Changes to any water resources which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that water?]

The RWQCB has characterized the shallow groundwater at the Alameda Facility/Alameda Annex has having ...ily limited beneficial uses, and is not used as drinking water because of high total dissolved solids (TDS) content. Under current land use conditions, human health risks have been determined acceptable because no

complete exposure pathways exist.

The proposed remedy will control future excavation of marsh crust soils and extraction of groundwater at the property site. Because of the intrinsic use limitation of the groundwater, the contamination of organic constituents (volatile organic compounds, TPH, and PAHs) related to former activities at or in the vicinity the FISC Annex, may, at this time, remain in place provided there are sufficient controls and restrictions to protect the public health, safety, and the environment. The proposed controls are intended to prevent pollution of surface waters by runoff from contaminated soil that may be excavated under future authorized activities. DTSC has determined that no changes to riparian land, rivers, streams, watercourses or wetlands would result from the proposed action. No effects on water resources are anticipated to take place as a result of this action.

Ref: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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4. Plant Life (Workbook; page 20)

Description of Environmental Setting:

The project area consists of paved roadways, commercia/industrial and residential structures, landscaped areas, and significant wildlife habitat at the shorelines and in the former landfills and landing strips. Vegetation in the project area consists of lawn grass surrounding the individual buildings and various ornamental trees and shrubs, including acacia (*Acacia* sp.), eucalyptus (*Eucalyptus* sp.), and bottle brush (*Callistemon citrinus*). Numerous Monterey pine (*Pinus radiata*) and California buckeye (*Aesculus californica*) exist on the site. No coast live oaks (*Quercus agrifolia*) exist on the project site. Two wetland areas at Alameda Point can be classified as salt marsh or brackis tidal marsh: The 22-acre West Beach Landfill Wetland, and the 13-acre Runway Wetland.

Ref: (a) Catellus Mixed Use Project Draft EIR; (b) EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility

lysis of Potential Impacts:

[The analysis must address the following concerns: 1) Any adverse effect to native and non-native plant life?; 2) Effects to rare and unique plant life and ecological communities dependent on plant life?; 3) Any adverse effect to listed threatened and endangered plants?; 4) Effects on habitat in which listed threatened and endangered plants are believed to reside?; 5) Effects on species of plants listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulations adopted thereunder?; or 6) Effects on marine and terrestrial plant species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside?]

DTSC has determined that implementation of the proposed institutional controls will not result in disruption of either the developed areas or wildlife habitat; therefore no impacts to vegetation are anticipated.

Ref: Remedial Action Plan

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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5. Animal Life (Workbook; page 22)

Description of Environmental Setting:

The project area consists of paved roadways, residential structures, landscaped areas, and significant wildlife habitat at the shorelines and in the former landfills and landing strips. Grassy areas provide nesting sites and foraging areas for a variety of wildlife, including northern harriers (*Circus cyaneus*), killdeer (*Charadrius vociferous*), red-tailed hawks (*Buteo jamaicensis*), peregrine falcons (*Falco peregrinus*), black-tailed hares (*Lepus californicus*), and California ground squirrels (*Spermophilus beecheyi*). The wetland areas support waterfowl, shorebirds, terns, gulls, swallows, and house mice (no salt marsh harvest mice were observed during a 1995 survey by the Navy). Eelgrass beds in the shallow water of San Francisco Bay and the Oakland Inner Harbor provide important foraging habitat for shorebirds and water fowl and a nursery for various fish and invertebrates. Rock breakwaters and riprap areas provide roosting, nesting, and foraging areas for waterbirds, including the California brown pelican, and provide a haul-out site for harbor seals. A colony of California least terns nests on the paved airfield at Alameda Point. Landscaped and developed areas are used primarily by typical urban wildlife such as scrub jays (*Aphelocoma coerulescens*), red-winged blackbirds, sparrows, house finches (*Carpodacus mexicanus*), American robins (*Turdus migratorius*), California ground squirrels, and feral cats. Bats have used buildings at Alameda Point and the FISC Annex for shelter, resting, and foraging.

Ref: EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility

Analysis of Potential Impacts:

[The analysis must address the following concerns: 1) Effects on listed threatened or endangered animals?; 2) Effects on habitat in which listed threatened and endangered animals are believed to reside?; 3) Effects on species of animals listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulations adopted thereunder?; or 4) Effects on marine and terrestrial animal species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside?]

DTSC has determined that implementation of the proposed institutional controls will not involve disruption of either the developed areas or wildlife habitat. No habitat will be disturbed or removed. There will be no effect on the California least tern or its habitat.

Ref: Remedial Action Plan

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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6. Land Use (Workbook; page 24)

Description of Environmental Setting:

The general pattern of existing land use at the FISC Annex and Alameda Point reflects the historic military use of the property. The western portion of Alameda Point reflects the former Navy airfield use and includes runways, taxiways, and aircraft hangars. The eastern portion of Alameda Point is intensely developed, with an extensive road system serving the many administrative and industrial buildings, warehouses, barracks and family housing units, community support buildings, and a large vessel marine port. The FISC Annex is comprised mainly of warehouse buildings served by an extensive road system. Surrounding land uses are: the remainder of the City of Alameda to the east and southeast; the Port of Oakland across the Oakland Inner Harbor to the north; and San Francisco Bay to the west and south. Adjacent land uses to the east and southeast include residential, community (churches, parks, schools, shoreline access to San Francisco Bay), educational, commercial, and industrial.

Ref: EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility

Analysis of Potential Impacts:

The project as proposed is the implementation of institutional controls which will not alter proposed or existing land use. The proposed remedy to address and control possible releases of PAH from the marsh crust to the surface at the FISC Annex and Alameda Point and to restrict extraction of ground water at the FISC Annex is a covenant to restrict specific use of the property (environmental restrictions), between the City of Alameda as the future owner of the property, and the Department of Toxic Substances Control. The restriction involves controls on excavation and management of soil excavated from the subsurface marsh crust layer and brought to the surface through construction or other activities. The restriction also involves controls on extraction of groundwater at the FISC Annex for other than industrial or irrigation purposes. Pursuant to California Civil Code section 1471(c), DTSC has determined that the covenant is reasonably necessary to protect present or future public health and safety or the environment. DTSC therefore intends that excavation of contaminated soil at the FISC Annex and Alameda Point and extraction of groundwater at the FISC Annex be restricted. The restrictions shall run with the land, pass with each and every portion of the property, and be enforceable by DTSC. The restrictions shall be incorporated by reference in each and all deeds, leases and subleases of any portion of the property. This restriction is not intended, nor is it likely to restrict, induce, or otherwise affect general land uses, but rather applies to the marsh crust at the FISC Annex and Alameda Point and ground water at the FISC Annex irrespective of any and all future land uses.

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DTSC has determined that implementation of the proposed remedy will not impact the existing or surrounding land uses or policies. The property is currently mixed use, and is proposed to remain so. Cleanup goals under the proposed remedy are consistent with residential use.

Ref: Remedial Action Plan

Findings.

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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7. Natural Resources (Workbook; page 25)

Description of Environmental Setting:

The FISC Annex and Alameda Point are largely urbanized, consisting of commercial/industrial buildings, paved and landscaped areas, and single- and multi-family residential units. The site was formerly marshland/tidal flats, and was filled in the early 1900's in a series of fill events using dredge spoils predominately from the Oakland Estuary.

Ref: EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility

lysis of Potential Impacts:

No physical changes to the FISC Annex or Alameda Point will result from the adoption of the proposed institutional controls as a remedy; therefore, DTSC has determined that the proposed remedy will not contribute to any significant depletion of natural resources.

Ref: Remedial Action Plan

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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8. Risk of Upset (Workbook; page 26)

Description of Environmental Setting:

The FISC Annex and Alameda Point are largely urbanized, consisting of commercial/industrial buildings, paved and landscaped areas, and single- and multi-family residential units.

Ref: (a)EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility; (b) Environmental Baseline Survey

Analysis of Potential Impacts:

, marsh crust has been characterized to occur between two and 20 feet below the ground surface. The contaminants in the marsh crust are not highly soluble. The proposed remedy is intended to minimize potential routes of exposure to the hazardous constituents in the marsh crust and groundwater, and will not result in any actions that could lead to an upset condition. No physical change to the site will take place as a result of the proposed remedial action plan; therefore, risk of upset is insignificant.

Ref: Remedial Action Plan

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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9. Transportation/Circulation (Workbook; page 29)

Description of Environmental Setting.

Local access to the FISC Annex is provided Webster Street and Mariner Loop. Local access to Alameda Point is provided by Atlantic Avenue and Main Street. Transit service consists mainly of AC Transit busses. Bikeways have been developed along Main Street and Atlantic Avenue. Sidewalks exist throughout Alameda Point. Buildings at the FISC Annex and Alameda Point are being leased, but occupancy rates are low.

Ref: (a)EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility; (b) Alameda Point ministration, City of Alameda

Analysis of Potential Impacts:

Implementation of the proposed institutional controls will not require transportation of materials or equipment to or from the site, nor have any impact on existing vehicular traffic patterns, air emissions or parking demand.

Ref: Remedial Action Plan

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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10. Public Services (Workbook; page 31)

Description of Environmental Setting:

The FISC Annex and Alameda Point fall under the jurisdiction of the City of Alameda Police Department which assumed law enforcement responsibility from the Navy on April 30, 1997. The City of Alameda Police Station is located at 1555 Oak Street, roughly 3 miles east of the intersection of Main Street and Atlantic Avenue. Trespassing and vandalism are the main law enforcement problems.

Fire services are provided to the FISC Annex and Alameda Point by the Alameda Fire Department. Five fire stations are located throughout the City of Alameda; administrative headquarters are located at 1300 Park Street, and a fire prevention office is located at 950 West Mall Square. Fire No. 2 is located at 635 Pacific Avenue; Fire Station No. 5 Fire Station is located at 950 West Ranger Avenue.

Ref: (a)EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility; (b) Alameda Point Administration, City of Alameda

Analysis of Potential Impacts:

The proposed institutional controls will not require any fire or police services. The proposed remedy to address and control possible releases of PAH from the marsh crust to the surface at the FISC Annex and Alameda Point and to restrict extraction of ground water at the FISC Annex is a covenant, to restrict specific use of the property (environmental restrictions), between the City of Alameda as the future owner of the property, and the Department of Toxic Substances Control. The restriction involves controls on excavation and management of soil excavated from the subsurface marsh crust layer and brought to the surface through construction or other activities. The restriction also involves controls on extraction of groundwater at the FISC Annex for other than industrial or irrigation purposes. The restrictions shall run with the land, pass with each and every portion of the property, and be enforceable by DTSC. The restrictions shall be incorporated by reference in each and all deeds, leases and subleases of any portion of the property. This restriction is not intended, nor is it likely to restrict, induce, or otherwise affect general land uses, but rather applies to the marsh crust at the FISC Annex and Alameda Point and ground water at the FISC Annex irrespective of any and all future land uses. The City of Alameda has elected to implement an ordinance controlling excavation into the marsh crust, and this ordinance will be relied upon by DTSC to ensure that the intent of the covenant is met for as long as the City maintains the ordinance in force and effect in such a way that the intent of the covenant is met. The ordinance will require administration by City personnel.

ef: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

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Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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11. Energy (Workbook; page 32)

Description of Environmental Setting:

Alameda Power and Telecom (AP&T) (formerly the City of Alameda Bureau of Electricity) provides electric power to the FISC Annex and Alameda Point. The primary natural gas supply for the western end of Alameda is a 12-inch diameter transmission main that crosses the Estuary from Oakland and runs south along Webster Street. An 8-inch diameter high pressure branch line runs west on Atlantic Avenue. Two 4-inch diameter metered connections off this line feed the existing East Housing area distribution system. The California Public Utility Commission has directed that all out-of-compliance conditions in the former Navy distribution system be corrected. Buildings at the FISC Annex and Alameda Point are leased, but occupancy rates are low; therefore, energy uses are low.

Ref: Alameda Point Administration, City of Alameda

Analysis of Potential Impacts:

The proposed institutional controls will not require use of any energy or fuel; therefore, the project will have no significant impact on energy use.

Ref: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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12. Utilities (Workbook; page 32)

Description of Environmental Setting:

Utilities infrastructure for water, wastewater and natural gas and electric exists at the FISC Annex and Alameda Point, although it may not meet current code requirements. Telephone service to the FISC Annex and Alameda Point site is provided by Pacific Bell. Overhead cable TV service exists at the FISC Annex and Alameda Point.

Ref: (a) EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility; (b) Alameda Point Administration, City of Alameda

Analysis of Potential Impacts:

No additional service from utility providers would be required as a result of the adoption of the proposed remedy; therefore, no significant impact to utilities or related infrastructure is anticipated.

Ref: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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13. Noise (Workbook; page 32)

Description of Environmental Setting:

The FISC Annex and Alameda Point are largely urbanized, consisting of commercial/industrial buildings, paved and landscaped areas, and single- and multi-family residential units. Buildings at the FISC Annex and Alameda Point are leased, but occupancy rates are low.

Ref: (a) EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility; (b) Environmental Baseline Survey

Analysis of Potential Impacts.

No additional noise would be generated at or from the site by the implementation of the remedy. No impact is anticipated.

Ref: (a) Remedial Action Plan

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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14. Public Health and Safety (Workbook; page 34)

Description of Environmental Setting:

The FISC Annex and Alameda Point are largely urbanized, consisting of commercial/industrial buildings, paved and landscaped areas, and single- and multi-family residential units. Buildings at the FISC Annex and Alameda Point are leased, but occupancy rates are low.

Human health risk assessments (HHRA) were conducted during the remedial investigation for several specific sites at the FISC Annex and Alameda Point (PRC Environmental Management, Inc., 1996; TetraTech EM Inc., 1999) and for groundwater at the FISC Annex (PRC, 1996; NewFields, 2000). Consistent with U.S. EPA and DTSC guidelines for conducting HHRA, the risk assessments found that there is no pathway to humans from the PAH in the marsh crust because of its depth. The HHRA determined that workers could be exposed to possible PAH contamination during construction of building foundations and utility work. However, DTSC has concluded that such exposures are unlikely to result in significant risk. The PAH may pose an unacceptable risk to human health and the environment if excavated marsh crust materials are brought to the ground surface and handled in an uncontrolled manner (e.g., if contaminated marsh crust soil is placed at the surface as a result of construction activities, thus creating an exposure pathway). Because shallow groundwater has been found to e no beneficial uses as drinking water and has limited use for agricultural or industrial supply the HHRA determined that the main route of human exposure is by volatilization of VOCs into indoor air spaces. Subsequent evaluation of soil gas concentrations and modeling results indicated that potential risks due to volatilization into indoor air spaces are within a risk-management range as defined by U. S. EPA Region IX. After completion of the RI, additional pathways for human exposure to contaminants in shallow groundwater became evident, including (1) the potential exposure of humans to groundwater through uses other than consumption and (2) the potential exposure of children and adult workers at a location proposed for future use as a school site to VOCs in indoor air. A supplemental HHRA was conducted using scenarios based on car wash workers and landscape workers using groundwater from the shallow aquifer to evaluate the potential risk due to exposure of adults to groundwater brought to the surface for irrigation or industrial purposes. The supplemental HHRA also evaluated children and adult workers to evaluate the potential risk due to exposure to indoor air that could be contaminated with VOCs that may volatilize from the contaminated ground water. In all cases, Hazard Indices and cancer risks were within or below the risk-management range as defined by U. S. EPA Region IX. The supplemental HHRA concluded that "there is no scientific basis for restricting either the potential non-potable beneficial uses of the ground water at the site or the proposal for placement of a school near the site as an acceptable land-use option." This HHRA is not intended to meet the requirements of the California Education Code Section 17210 et seq. When a school site is formally proposed, the California Education Code will be triggered.

Ref: (a) EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility; (b) Environmental Baseline Survey; (c) Operable Unit 1 Remedial Investigation Report; (d) Remedial Investigation Report, Fleet nd Industrial Supply Center, Oakland Alameda Facility/Alameda Annex; (e) Baseline Human Health Risk ssessment

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Analysis of Potential Impacts:

The human health risk assessments conducted for the FISC Annex and Alameda Point concluded there is no risk to human health because no pathway exists for the marsh crust contamination and risk from exposure to ground water are within a risk-management range. The adoption of the remedy is intended to prevent contamination from release to the surface. The proposed remedy would be effective in the long term because its implementation would become part of DTSC's ongoing governmental regulatory system. The land-use covenant will be in the chain-of-title, which will put all future owners on notice. This type of recorded covenant has more "permanence" because the institutional control would reduce the probability that future occupants will excavate the marsh crust without taking proper precautions. Should the City of Alameda decide to change or eliminate the excavation ordinance, the covenant would require DTSC to approve any projects involving excavation into the marsh crust.

Pursuant to Assembly Bill 871, which became effective on January 1, 1999, DTSC is required to maintain a list of all land use restrictions recorded pursuant to Health and Safety Code sections 25200, 25200.10, 25202.5, 25222.1, 25229, 25230, 25355.5, and 25398.7. At a minimum, this list must provide the street address, or if a street address is not available, an equivalent description of location for a rural location or the latitude and longitude of each property. DTSC is also required to update the list as new land use restrictions are recorded, and make the list available to the public, upon request, and place the list on the DTSC Internet website. DTSC is evaluating our system for tracking the effectiveness of institutional controls, but this evaluation should not delay such remedies, including the one before us. Remedial alternatives to institutional controls, such as excavation of marsh crust, have undergone evaluation and have been determined infeasible. The contaminated layer at depth cannot be removed without incurring significant disruption to the local community, in addition to onerous and unnecessary cost. The only other alternative is complete prohibition of any residential use.

Ref: (a) Operable Unit 1 Remedial Investigation Report; (b) Remedial Investigation Report, Fleet and Industrial Supply Center, Oakland Alameda Facility/Alameda Annex; (c) Baseline Human Health Risk Assessment; (d) Remedial Action Plan

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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15. Aesthetics (Workbook; page 38)

Description of Environmental Setting:

The FISC Annex and Alameda Point are largely urbanized, consisting of commercial/industrial buildings, paved and landscaped areas, and single- and multi-family residential units. Buildings at the FISC Annex and Alameda Point are leased, but occupancy rates are low.

Ref: (a) EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility; (b) Environmental Baseline Surveys

lysis of Potential Impacts:

physical effects will result from the adoption of the remedial action plan; therefore, no impacts to the aesthetics of the site will occur.

Ref: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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16. Cultural/ Paleontological Resources (Workbook; page 39)

Description of Environmental Setting:

The FISC Annex and Alameda Point are largely urbanized, consisting of commercial/industrial buildings, paved and landscaped areas, and single- and multi-family residential units. A number of cultural resources surveys for both historical and archaeological resources have been conducted in the last few years for the environmental documentation for transfer and disposal of the site by the Navy. No resources have been identified on the FISC Annex or Alameda Point by these surveys of the site and records searches. Because the FISC Annex and Alameda Point consists of fill, no paleontological resources are expected to exist at either facility.

Ref: PAR Environmental Services, Inc. *An Archaeological Evaluation of the Fleet Industrial Supply Center - Alameda Annex/Facility, and US Navy Alameda Family Housing,* June 1996. As cited in City of Alameda, *Catellus Mixed Use Development Draft Environmental Impact Statement,* December 1999.

Analysis of Potential Impacts:

Implementation of the proposed remedy will not result in any disruption or impact to the surface soils. Therefore, DTSC has determined that there will be no impact to cultural or paleontological resources as a result of the adoption of the proposed remedial action plan.

Ref: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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17. Cumulative Effects (Workbook; page 42)

Description of Environmental Setting:

The city of Alameda is currently considering a mixed-use development proposal for the FISC Annex and the East Housing portion of Alameda Point.

Ref: (a) Alameda Point Administration, City of Alameda; (b) Catellus Mixed Use Project Draft EIR; (c) EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility

Analysis of Potential Impacts:

The cumulative impact of the adoption of the proposed remedial action plan and the proposed mixed-use development project could result in impacts to human health from exposure to the marsh crust layer during excavation of the site in preparation for construction. These potential impacts would be mitigated by the covenant proposed as part of this remedial action plan which requires approval from DTSC or the City of Alameda for the excavation of soil at the FISC Annex and Alameda Point and restricts extraction of ground water at the FISC Annex. The City has enacted an ordinance which would require controls on the management of soil excavated from the subsurface marsh crust layer in order to limit human exposure during construction activity at the site, and would reduce the potential impact to less than significant.

DTSC has conducted CEQA reviews for past site mitigation-related projects which concluded that impacts associated with those projects were insignificant both from an individual and cumulative perspective. The project analysis in this Initial Study also shows impacts to be insignificant when institutional controls are imposed. These controls would restrict any physical disturbance of soils and extraction of ground water within certain parameters to avoid significant impacts to human health and the environment.

DTSC also examined the Draft Environmental Impact Report for the Catellus Mixed Use Development Project that concluded future impacts associated with development of the subject site would also be insignificant when mitigation measures were imposed, including imposition of the mentioned institutional controls which limit human exposure to hazardous waste. As such, DTSC finds that cumulative impacts from this project when viewed against related past and future projects would be insignificant.

Ref: (a) Remedial Action Plan; (b) Catellus Mixed Use Project Draft Environmental Impact Report; (c) City of Alameda Final Environmental Impact Report for the Reuse of Naval Air Station Alameda and the Fleet and Industrial Supply Center, Alameda Annex and Facility; (d) Negative Declaration for IR Sites 15 and 16 Removal Action; (e) Negative Declaration for Radiological Removal Action at IR Sites 1, 2, 5, and 10; (f) Negative Declaration for PCB-Contaminated Soils and Sump Removal at Screening Lot and Scrapyard Area, FISC Annex

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Findings.

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☒	☐

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18. Population/Housing/Recreation (Workbook; page 43)

Description of Environmental Setting:

The FISC Annex and Alameda Point are largely urbanized, consisting of commercial/industrial buildings, paved and landscaped areas, and single- and multi-family residential units. The project area has been proposed by the City of Alameda for future mixed-use development; however, the proposed remedy would be necessary irrespective of proposed future land use, and therefore does not drive future land use of any particular type.

Ref: (a) Catellus Mixed Use Project Draft EIR; (b) Environmental Baseline Survey; © EIR for the Reuse of NAS Alameda and FISC Alameda Annex/Alameda Facility

ılysis of Potential Impacts:

The adoption of the proposed remedy would have no effect on population, housing or recreation because no physical change would take place as a result of the covenant.

Ref: (a) Remedial Action Plan; (b) Alameda Point Administration, City of Alameda

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

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19. Mandatory Findings of Significance (Workbook; page 44)

		Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b)	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☐	☒
c)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☐	☒
d)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

V. DETERMINATION OF DE MINIMIS

On the basis of this Special Initial Study:

☒ I find that there is no evidence before the Department that the proposed project will have a potential for an adverse effect on wildlife resources or the habitat upon which the wildlife depend. A NEGATIVE DECLARATION with a DE MINIMIS IMPACT FINDING will be prepared.

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VI. DETERMINATION OF SIGNIFICANT EFFECT

On the basis of this Initial Study:

☒ I find that the proposed project COULD NOT have a significant effect on the environment. A NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project COULD HAVE a significant effect on the environment, mitigation measures have been added to the project which would reduce these effects to less than significant levels. A NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project COULD HAVE a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

Mary Rose Cassa
Name of Preparer

Hazardous Substances Engineering Geologist
Title

Mary Rose Cassa
Signature of Preparer

6-14-00
Date

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ATTACHMENT A

SPECIAL
INITIAL STUDY
REFERENCE LIST
for
Remedial Action Plan for the Marsh Crust and Groundwater at the
Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex
and the Marsh Crust and Former Subtidal Area at Alameda Point

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1. Alameda Point Administration, City of Alameda

2. *Catellus Mixed Use Development Draft Environmental Impact Statement*, December 1999, City of Alameda

3. PAR Environmental Services, Inc.: An archaeological Evaluation of the Fleet Industrial Supply Center - Alameda Annex/Facility, and US Navy Alameda Family Housing, June 1996. As cited in City of Alameda, *Catellus Mixed Use Development Draft Environmental Impact Statement*, December 1999

4. U.S. Naval Facilities Engineering Command, 1988, Master Plan for Navy Supply Center Oakland, CA

5. *Remedial Action Plan for Marsh Crust at the East Housing Area, Alameda Point, Alameda, California*, March, 2000, Department of Toxic Substances Control

6. IT Corporation, 1999a. *Environmental Baseline Survey Comprehensive Guide: History of NAS Alameda and Alameda Point* (March, 1999)

7. IT Corporation, 1999b. *Environmental Baseline Survey/Phase 2B Sampling Draft Final Parcel-specific Data Evaluation Summaries* (March 1999)

8. PRC Environmental Management, Inc., 1996. *Basewide Environmental Baseline Survey Report, Fleet and Industrial Supply Center, Oakland, Alameda Facility/Alameda Annex* (December, 1996).

9. TetraTech EM Inc., 1999. *Operable Unit 1 Remedial Investigation Report* (March, 1999)

10. PRC Environmental Management, Inc., 1996. *Final Remedial Investigation Report, Fleet and Industrial Supply Center, Oakland Alameda Facility/Alameda Annex Site, Alameda, California* (January, 1996)

11. NewFields, 2000. *Baseline Human Health Risk Assessment, FISCO Alameda Facility/Annex Site* (January, 2000).

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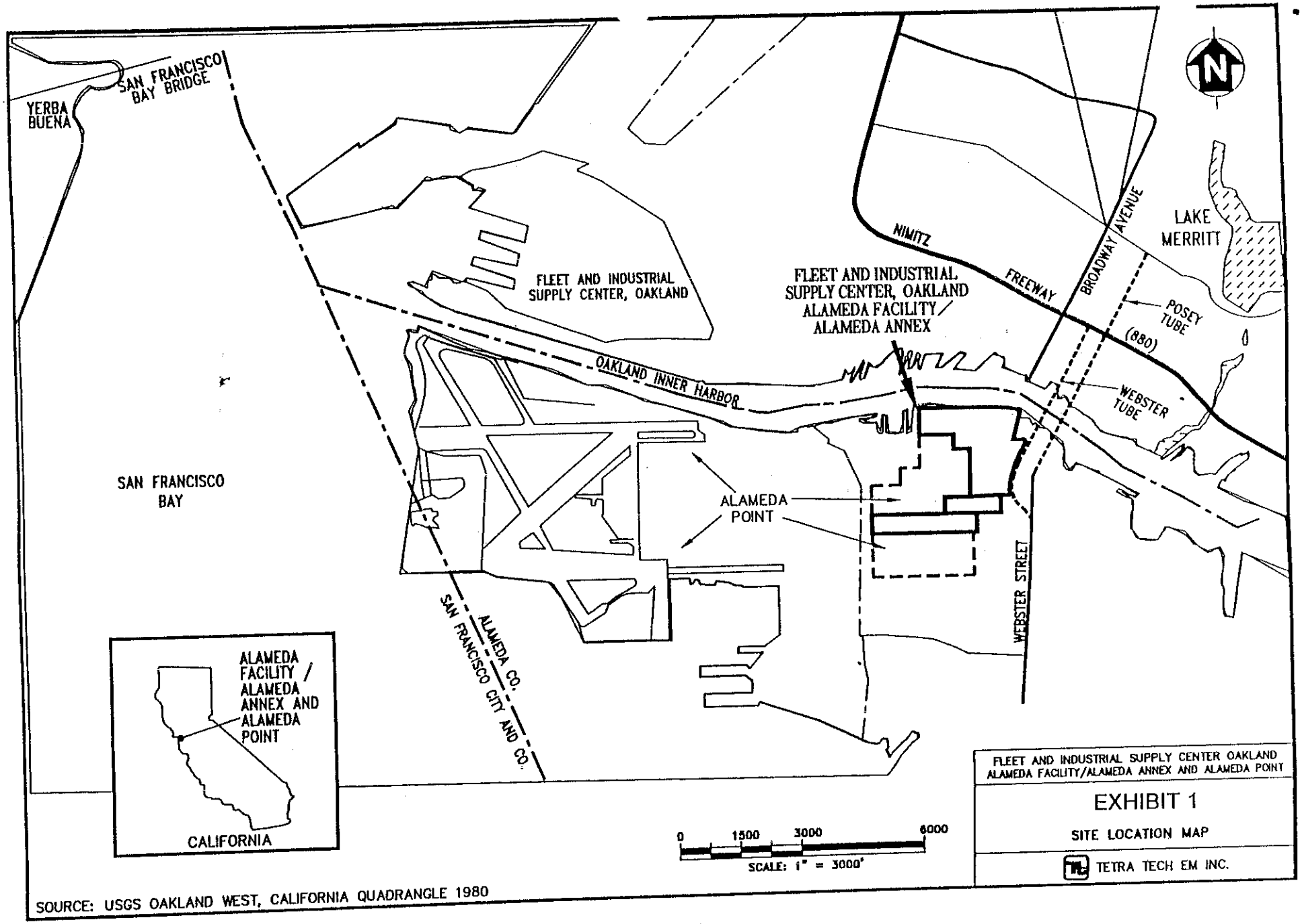
12. Lee, C. H., and Praszker, M., 1969. *Bay Mud Developments and Related Structural Foundations* in *Geologic and Engineering Aspects of San Francisco Bay Fill*, California Division of Mines and Geology Special Report 97, p. 43-85.

13. *Final Environmental Impact Report for the Reuse of Naval Air Station Alameda and the Fleet and Industrial Supply Center, Alameda Annex and Facility*, March 2000, City of Alameda

14. Negative Declaration for IR Sites 15 and 16 Removal Action (DTSC, 1997)

15. Negative Declaration for Radiological Removal Action at IR Sites 1, 2, 5, and 10 (DTSC, 1998)

16. Negative Declaration for PCB-Contaminated Soils and Sump Removal at Screening Lot and Scrapyard Area, Fleet and Industrial Supply Center Oakland Alameda Facility/Alameda Annex (DTSC, 1997)



SOURCE: USGS OAKLAND WEST, CALIFORNIA QUADRANGLE 1980

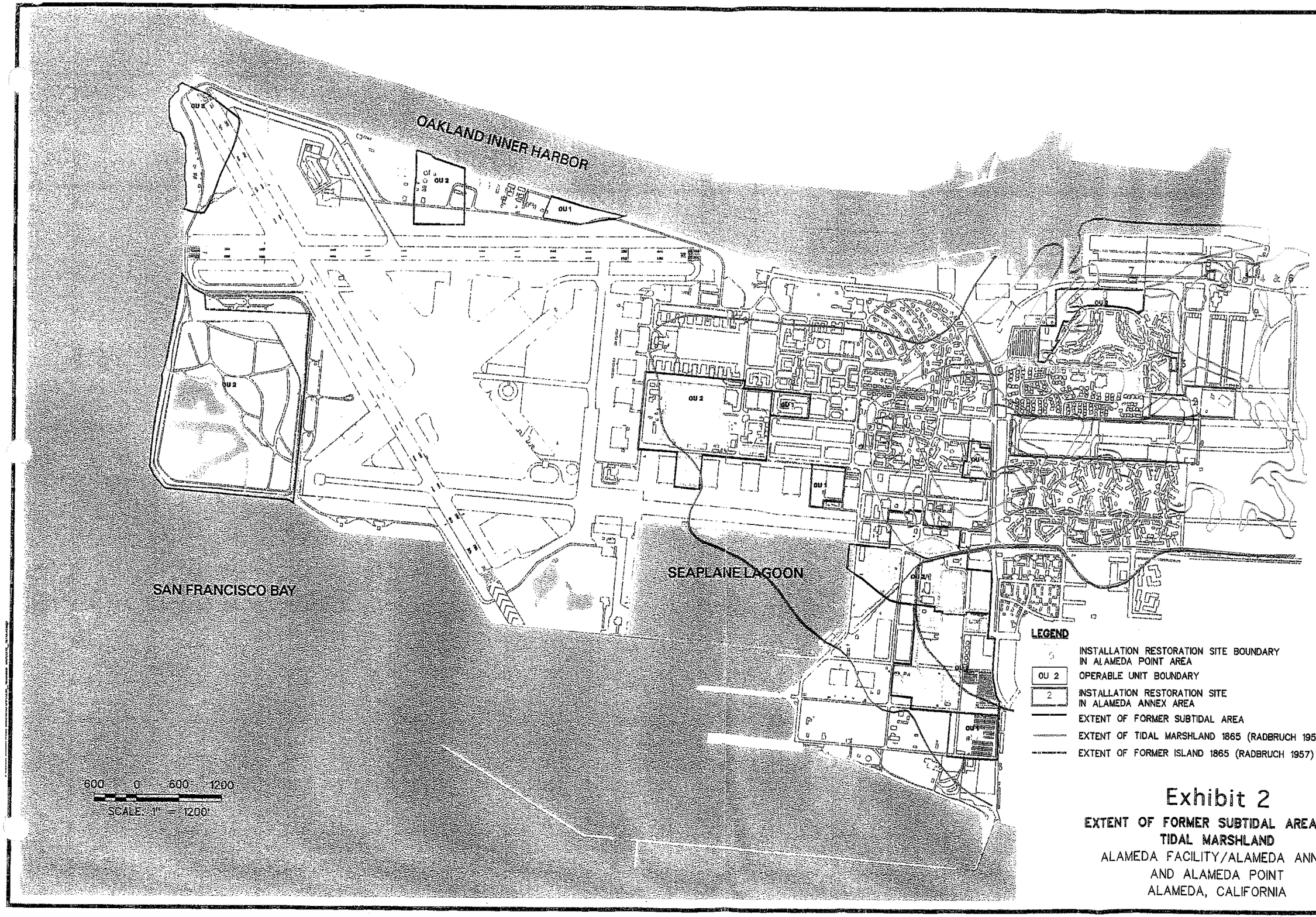


Exhibit 2

EXTENT OF FORMER SUBTIDAL AREA AND TIDAL MARSHLAND

ALAMEDA FACILITY/ALAMEDA ANNEX
AND ALAMEDA POINT
ALAMEDA, CALIFORNIA

APPENDIX E

RESPONSIVENESS SUMMARY

(54 Pages)

As a result of discussions with DTSC on groundwater at Alameda Facility/Alameda Annex, it was decided to remove the groundwater at Alameda Facility/Alameda Annex from the final RAP/ROD. A separate RAP/ROD will be prepared for the groundwater at Alameda Facility/Alameda Annex.

APPENDIX E

RESPONSIVENESS SUMMARY

(54 Pages)

APPENDIX E

RESPONSIVENESS SUMMARY

RESPONSE TO PUBLIC COMMENTS ON THE DRAFT RECORD OF DECISION/REMEDIAL ACTION PLAN AND PROPOSED PLAN FOR MARSH CRUST AND GROUNDWATER AT THE ALAMEDA FACILITY/ALAMEDA ANNEX AND FOR MARSH CRUST AND SUBTIDAL AREA AT ALAMEDA POINT ALAMEDA CALIFORNIA

This document presents the Navy's responses to comments on the draft Record of Decision/Remedial Action Plan (RAD/ROP) and Proposed Plan for Marsh Crust and Groundwater at Alameda Facility/Alameda Annex and for Marsh Crust and Subtidal Area at Alameda Point.

In preparing this responsiveness summary, the Navy followed "A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Documents," (OSWER Directive 9200.1-23P, July 1999). The responsiveness summary summarizes the views of the public and support agencies and documents in the record how public comments were integrated into the remedial decision. The guidance suggests that the responsiveness summary be organized into two sections:

> "Stakeholder Issues and Lead Agency Responses: summarize and respond concisely to major issues raised by stakeholders (for example, community groups, support agencies, businesses, municipalities, and potentially responsible parties [PRPs]).
>
> "Technical and Legal Issues, if necessary." (EPA 1999)

Based on the comments received from citizens and support agencies during the public comment period, there are no outstanding technical or legal issues for this RAP/ROD. Therefore, only the Stakeholder Issues and Lead Agency Responses section is included in this responsiveness summary. The guidance recommends, "If the lead agency determines that a point-by-point response to a set of comments is warranted, a separate comment/response document should be prepared." The Navy has concluded that a point-by-point response is not warranted and has responded in this responsiveness summary to all comments submitted. Most comments and the responses are summarized by topic. Comments that pertain to a unique topic are presented verbatim.

1. **Comment: Regarding alternative 2 in Cleanup program: "Limited purpose" of use of groundwater should not include irrigation because fruit trees and vegetables could well be included and could be contaminated.**

   Commenter: Community Member, Alameda, California

   Response: Currently, state and county restrictions on construction of groundwater wells at Alameda Facility/Alameda Annex prevent irrigation of fruit trees and vegetables. In fact, the shallow groundwater contains total dissolved solids in such naturally high concentrations that the groundwater is not suitable for irrigating fruit trees and vegetables. Even though irrigation of fruit trees and vegetables with the

shallow groundwater would likely kill the plants, the Navy evaluated the potential contribution of the irrigation water exposure pathway to total human health risks. The Navy concluded that generally, exposures associated with volatile organic compounds (VOC) through food-chain pathways are not significant, in comparison to other groundwater exposure pathways (such as ingestion or inhalation of VOCs from building air), primarily because VOCs are low-molecular-weight chemicals that do not persist or bioaccumulate in the environment. Also according to EPA[1] " it should be noted that the exposure to chemicals in groundwater through ingestion of fruit is a minor pathway relative to the potential exposure pathway via inhalation of VOCs from groundwater into enclosed building air" (EPA 1998). The "limited purpose" groundwater use was not intended to include irrigation of food crops. In addition, under Alternative 2, permits for construction of new groundwater wells will not likely be issued for irrigation of fruit trees and vegetables.

[1] Reference: US Environmental Protection Agency (EPA) 1998. "U.S. EPA comments on IR 02 Feasibility Study Fleet and Industrial Supply Center Oakland, Alameda Annex Attachment A, dated 2 September 1998" October

2. **Comment: The EPA submitted twelve comments on the RAP/ROD, most of which were suggestions for clarifying the text, rather than substantive changes to the RAP/ROD. Three comments requested editorial changes to the three occurrences of the "Environmental Restrictions in Deed" paragraph in the RAP/ROD. One comment noted that the statements in the RAP/ROD indicating that the Navy and DTSC had selected the remedy were inconsistent with the Navy's position at other bases, in particular, the ROD for Naval Station Long Beach. Another comment asked that EPA be added to the approval process for the Land Use Control Implementation and Certification Plan (LUCICP) because "a portion of the land it will cover is on the NPL site."**

Commenter: Phillip Ramsey, Remedial Project Manager, EPA

Response: All of the editorial changes were considered and made in the RAP/ROD to the extent the text was clarified as a result. In the Environmental Restrictions in Deed paragraphs, the language suggested (and that had been inadvertently omitted from the draft RAP/ROD) was restored. The language regarding the parties to remedy selection will remain the same because it shows that the RAP/ROD fulfills both federal and state requirements for selection of remedies at sites that are not on the NPL. EPA was added to the LUCICP approval process.

3. **Comment: Two comments were submitted verbally by a community representative of the Restoration Advisory Board during the public meeting held on June 29, 2000. One comment asked for clarification of the five-year review requirement. The second comment requested that additional detail be added regarding the cost of the remedial action.**

Commenter: **Mary Sutter, Community Co-Chair, Alameda Point Restoration Advisory Board**

Response: Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires that if the Navy selects "a remedial action that results in any hazardous substances, pollutants or contaminants remaining at the site, the President shall review such remedial action no less often than each 5 years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented." The remedial cost estimate in the feasibility study (FS) included costs to complete six reviews over 30 years. However, CERCLA currently does not provide for discontinuing the reviews, although EPA plans to publish guidance on the issue. Until then, the Navy has chosen to estimate costs based on six reviews over 30 years. The language in the RAP/ROD concerning the reviews (Sections 2.13.1 and 2.13.2) was simply quoted from the statutory language to avoid confusion. In response to the second comment, additional detail on cost has been transferred from the FS into the appropriate sections of the RAP/ROD. The cost for Alternative 2 for the marsh crust and subtidal area was erroneously transferred from the FS to the draft RAP/ROD. The present worth cost for Alternative 2 is now correctly shown as $59,800.

4. **Comment:** **A written comment was received from DTSC regarding additions and deletions to the Administrative Record. In addition, DTSC requested that a reference to the Removal Action Workplan (RAW) for the East Bay Housing site be included in Section 2.2.2.**

Commenter: **Mary Rose Cassa, Remedial Project Manager, DTSC**

Response: The Newfields human health risk assessment (HHRA) for Groundwater, January 14, 2000, was added to the Administrative Record, and the Final Finding of Suitability to Transfer (FOST) for the East Housing Area dated April 7, 2000 was deleted. The reference to the RAW was added to the RAP/ROD.

Two citizens' groups, Arc Ecology (AE) and Clearwater Revival Company (CRC) submitted extensive technical comments on the RAP/ROD and the remedial investigation (RI) and feasibility study (FS) reports that support the draft RAP/ROD. Their comments are summarized below and responses provided. Copies of the original comments are included in the administrative record. The thirty-nine comments submitted by CRC were presented in nine categories and the responses follow these categories, with one exception. Two comment categories, "Ecological Risk Assessment" and "Marsh Crust Ecological Risk Assessment" have been combined into one category because the comments are related. Where appropriate, AE comments related to these categories are combined with the CRC comments. A separate response is provided to one AE comment, regarding the LUCICP.

5. **Comment: Community acceptance: CRC and AE stated that the selected alternatives in the draft RAP/ROD do not have support of the community. AE gave the example of a resolution recently passed by the Alameda NAS RAB dated April 4, 2000, notifying the City of Alameda that the excavation ordinance, which is one of three components of the selected alternative, suffers from significant deficiencies. The two groups asked that the RAP/ROD be revised to reflect this lack of support.**

Commenter: Arc Ecology (Comment 4a), CRC (Comment 1)

Response: The lack of support from AE and CRC is noted. However, AE and CRC represent only part of the community that contributed input to the remedial decision process. The RAB for Alameda Facility/Alameda Annex and Alameda Naval Air Station also includes community members who have participated in review of reports and alternative selection process as well and support the RAP/ROD. The Alameda Naval Air Station RAB resolution did not reject the land use control alternative, but instead requested that the excavation ordinance be enhanced to provide maximum protection at minimum financial burden to the public. The RAB resolution, as well as RAB comments submitted during the public comment period, were also considered in the final RAP/ROD

6. **Comment: Previously Submitted Comments – CRC noted that comments submitted in letters dated March 19, 1999, and February 17, 2000, regarding the FS received no response.**

Commenter: CRC (Comment 2)

Response: Publication of the draft RAP/ROD is the culmination of the site investigation, alternative development, and remedy selection process that has been under way for several years at Alameda Facility/Alameda Annex and Alameda Point. The Navy considered the comments submitted by CRC and participating agencies during this process, although no formal responses to the CRC comments were generated at the time. A majority of the comments were technical and provided valuable suggestions for corrections and enhancements to the final FS reports. The comments were incorporated as appropriate and are not repeated in this responsiveness summary. This responsiveness summary is the first formal opportunity for the Navy to solicit feedback from and respond to all community members, including AE and CRC

7. **Comment: Scope of Marsh Crust Remedy – CRC felt that the physical scope of the remedy was not clearly defined in the RAP/ROD. Concern was raised that the land use controls do not extend to land not owned by the Navy and that areas such as the Seaplane Lagoon and certain areas along the northern boundary of the subtidal area should be included in the scope of the remedy. Finally, CRC suggested that the City of Alameda should share in preparing the RAP/ROD.**

Commenter: **CRC (Comments 3 - 7)**

Response: The scope of this RAP/ROD is strictly limited to the areas of the marsh crust/former subtidal area and the shallow groundwater identified in the site description and figures in this RAP/ROD. The data used to define the nature and extent of these areas are contained in the relevant RI reports. The Seaplane Lagoon and the areas north of the subtidal boundary are not included in the scope of this RAP/ROD but will be addressed as the investigations of Alameda Point progress.

The Navy is selecting the remedy for the marsh crust/subtidal area at Alameda Facility/Alameda Annex and Alameda Point and shallow groundwater at Alameda Annex under its authority as the "lead agency" for response actions described in CERCLA Section 104(a)(1) and delegated in Executive Order 12580. The City of Alameda does not have the same authority but has participated in preparing this RAP/ROD through review and comment.

Based on previous investigations, it is generally believed that the Navy first occupied Alameda Point well after the contaminants had already been deposited in the marsh crust and subtidal area, and the Navy bears no responsibility for the contamination. Nevertheless, the Navy is implementing this remedy to facilitate remediation and transfer of the property. Nothing in this remedy precludes the use of land use controls for properties not owned by the Navy and not within the scope of this RAP/ROD. For example, property now owned by the city can be subjected to land use controls as deemed necessary.

8. **Comment:** **Contamination in Marsh Crust/Subtidal Area – AE and CRC raised several technical questions regarding characterization of the contamination as presented in the RAP/ROD. In general, they felt that incomplete characterization would result in the selection of a remedy that was not protective. CRC suggested additional investigation of the depth of the marsh crust and its thickness. CRC felt that additional investigation of the 6-year underground storage tank (UST) removal program (more than 100 tanks were removed) was needed to further define the extent of marsh crust. CRC noted that benzo (a) pyrene contamination was found above the average depths attributed to the marsh crust, and AE recommended additional study on the potential for benzene and naphthalene to volatilize from the groundwater and cause risk to human health or the environment.**

Commenter: **CRC (Comments 8 – 12), Arc Ecology (1-3, 4e, 5b)**

Response: The suggestions of both commenters for additional study were considered for their potential to change the RAP/ROD and the selected alternative. The Navy acknowledges that additional investigation might result in a more definitive description of the distribution of contamination in the marsh crust/subtidal area. However, the Navy, the state, and EPA have concluded that the remedy selection decision would not be significantly enhanced by additional data collection.

Protection of human health and the environment is better served by implementation of the land use controls rather than additional investigation. However, should new information be discovered that indicates the land use controls are no longer protective (for example, through the 5-year review process); the remedy can be re-evaluated and upgraded.

With respect to AE's concern regarding PAH contamination in the soil column, it should be noted that in the conceptual model, the marsh crust is a discrete depositional layer of a unique and definable soil type. In the model, some areas within this definable layer are contaminated. The processes that resulted in the marsh crust layer, and the processes that resulted in contamination in some regions of the marsh crust, are distinct from processes that resulted in the presence of other soil layers and processes that may have resulted in contamination of those other soil layers. PAH contamination in soil above the marsh crust is not within the scope of this RAP/ROD.

With specific regard to the UST removals, the majority occurred in areas where the marsh crust is deeper than the UST excavation. UST regulations require that soil excavated with the tank be tested and disposed of properly, and documentation indicates that the proper actions were taken

With respect to AE's concern that the exact nature of the groundwater-to-indoor-air problem needs additional study, the Navy notes that a quantitative risk assessment of the volatilization pathway showed no unacceptable risk. The assessment is included in more detail in the relevant RI report.

9. **Comment: Remedial Action Objectives - CRC felt that the RAP/ROD should be revised because contaminants of concern, their potential exposure pathways, and the corresponding remedial action objectives were not adequately explained. In addition, CRC felt that gaseous "hydro-chloride" had been ignored in the investigation.**

Commenter: CRC (Comments 13-17)

Response: The contaminants of concern (COCs), the exposure pathways, and the remedial action objectives are all discussed in the RAP/ROD. Table 1 in the RAP/ROD summarizes the risk characterization for both Alameda Facility/Alameda Annex and Alameda Point. Additional detail on the COCs and identification of exposure pathways is included in the FS report. Specifically, benzene in groundwater was the only COC identified and risk assessment results for the inhalation and dermal pathways revealed that risk fell within acceptable limits. The other contaminants found at the site did not pose unacceptable risks because they were detected at concentrations below risk-based screening levels or were detected infrequently. However, the potential exists that marsh crust and subtidal material could be raised to the ground surface through excavation and, if spread or handled in an uncontrolled manner, would create an unacceptable risk. The final RAP/ROD has been revised to include quantitative estimates of this

risk (Section 2.7.1 4). The exposure routes and pathways CRC suggested were considered in the early stages of the risk assessment but were deemed insignificant because of the depths of the contaminated material and the low contaminant concentrations in the shallow groundwater.

With respect to the "hydro-chloride" odors CRC mentioned, the Navy believes that references to hydrocarbon odors were abbreviated as "HC" in boring logs reviewed by CRC and that the abbreviation was incorrectly transcribed as hydrochloride in the RI report. Hydrocarbon odors are to be expected when boring in the marsh crust area and the remedy selected in this RAP/ROD addresses hydrocarbon contamination.

10. **Comment: Proposed Remedy – CRC suggested that revisions to the RAP/ROD were necessary because the remedy does not reduce the toxicity, mobility, or volume of the contaminated material. CRC also asked for revisions to the scope of the ordinance, and an assessment of the impact of an adjacent future project by the U.S. Army Corps of Engineers for the Port of Oakland. AE questioned the enforceability of the remedy and the lack of specified threshold depths in the RAP/ROD, and raised concern about the unrestricted use of groundwater for irrigation.**

Commenter: CRC (Comments 18-22), AE (Comments 4c, 4d, 5a)

Response: As stated in the RAP/ROD, the selected remedy does not reduce toxicity, mobility, or volume of contaminants through treatment, which is one of the five balancing criteria specified in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The FS showed that even though the remedy did not use treatment, it provides the best balance among the criteria, which also included long-term effectiveness and permanence, short-term effectiveness, implementability and cost.

The Navy does not have the authority to extend the city's ordinance to non-Navy property as part of the selected remedy. The ordinance buttresses the other two components of the remedy, the Covenant to Restrict Use of Property, and the Environmental Restrictions in Deed. A copy of City Ordinance No. 2824 has been included as Appendix B in the final RAP/ROD.

It should be noted that the geographic scope of the City ordinance encompasses a much larger area (the former Naval Air Station Alameda and Fleet Industrial Supply Center, Alameda Facility/Alameda Annex) than the specific marsh crust/subtidal area that is the subject of this RAP/ROD.

The cited Port of Oakland expansion project by the U.S. Army Corps of Engineers does not fall within the scope of this remedy. However, it is an example of a project that might be subject to review and permitting, including imposition of the land use controls specified in this remedy. With regard to

CRC's comment about permit exemptions under CERCLA, the Navy notes that all future excavation activity on property covered by this RAP/ROD will be subject to the ordinance's permit requirements described in the RAP/ROD, with one exception. In accordance with Section 121(e) of CERCLA, on-site response actions taken under the statute are exempt from the administrative aspects of the ordinance permit requirements. However, CERCLA response actions must comply with the substantive aspects of the ordinance permit requirements. This means that any future CERCLA cleanup must take proper measures to ensure that workers are not unduly exposed and that all contaminated material brought to the surface is properly disposed of.

Regarding the enforceability of the land use controls, the Navy will be able to enforce the Environmental Restrictions in Deed, and the city and DTSC will be responsible for enforcing the Covenant to Restrict Use of Property. Together with the third component of the remedy, the Marsh Crust Ordinance, these controls provide three "tiers" of protection of human health and the environment. As explained in the Navy's June 29, 2000, response to EPA's letter on this issue (May 11, 2000), the approach was successfully negotiated with EPA on the Record of Decision for Operable Unit 2 of the Marine Corps Air Station El Toro.

AE requested that the threshold depths be reported in the RAP/ROD. The threshold depth will be calculated for each excavation project and will vary, depending on the proposed location of the excavation. The remedy is not intended to prohibit installation of monitoring or extraction wells. The RAP/ROD will be revised to state that groundwater monitoring for contaminants will be allowed.

Finally, current state and county restrictions on construction of groundwater wells at Alameda Facility/Alameda Annex will be supplemented by the covenant and Environmental Restrictions in Deed. These restrictions will not allow disposal of extracted groundwater except in compliance with the requirements of the Regional Water Quality Control Board (RWQCB). RWQCB regulations and the plan that implements them are designed to achieve compliance with the Clean Water Act. Therefore, there is little likelihood that any negative impacts will result from groundwater use permitted by the state.

11. **Comment: Marsh Crust Ecological Assessment/Ecological Risk Assessment – CRC requested that the ecological risk assessment be expanded to include impacts from future development projects. The commenter also felt that impacts of contaminated groundwater on surface water quality and indoor air quality were not addressed by the RAP/ROD. Eleven comments raised technical concerns with the groundwater modeling completed to assess the fate and transport of contaminants in the shallow groundwater zone.**

Commenter: CRC (Comments 23-24, 29 – 39)

Response: The selected remedy is constructed such that development carried out in compliance with the remedy and pursuant to the laws of the State of California is not expected to result in adverse impacts to any ecological receptors. Any development, including the proposed Catellus project, will be subject to all applicable requirements, including the land use controls required by this RAP/ROD as well as established state and federal requirements with respect to endangered species' habitat. Negative impacts of groundwater on surface water and indoor air quality were, in fact, evaluated in the RI/FS. The remedial investigation has shown that these pathways do not pose unacceptable risks to human health and the environment. The Navy has reviewed and considered CRC's 11 comments that take issue with the groundwater model used for ecological risk assessment. The results of groundwater modeling are extremely sensitive to the selection of various input parameters and assumptions made about geology and hydrogeology. The groundwater modeling was planned and reviewed by professional engineers and scientists from the Navy, its contractor, DTSC, and RWQCB. The parameters chosen were conservative with an intent to overestimate risk to ecological receptors. Nevertheless, calculated ecological risk was shown to be insignificant. Although CRC's argument that other parameters could be used is valid, the Navy believes that ecological risk is low, considering the limitations of the exercise.

12. **Comment: Summary of Site Risks – CRC noted a typographical error in the expression of the concentration of benzene in soil gas. In addition, CRC requested revisions to the RAP/ROD with respect to the conclusions of air quality risk assessments in school settings and suggested that the risk assessment should comply with California Education Code Section 17210 et al. Finally, CRC requested revisions to the RAP/ROD or the Newfields Risk Assessment with respect to the source of and risks from marsh crust contamination.**

Commenter: CRC (Comments 25-28)

Response: The Navy has corrected the error noted by CRC. The air quality risk assessments reported in the RI/FS used commonly accepted and conservative assumptions to calculate the potential risk from volatilization of benzene into indoor air, and including a school scenario. The results clearly showed that volatilization would not create an unacceptable risk for either school students or adult school workers. In addition, the requirements of the state code identified by CRC are not triggered until certain conditions are met (California Education Code Sections 17210-17224) and are not considered applicable or relevant and appropriate requirements (ARAR) for this remedial action.

After extensive study and analysis, the Navy is confident that the source of the marsh crust contamination is historical deposition of effluent that contained polynuclear aromatic hydrocarbons (PAHs) and other industrial wastes released to marsh waters from the late 1800s until the 1920s. The wastes were deposited in the marsh before the Navy first occupied the site and before the wastes were

entombed under sediment and dredge material from the Oakland Inner Harbor and San Francisco Bay. Some photodegradation may have occurred, but was likely not sufficient to significantly deplete the large masses of PAH in the waterways and marshes. Because of this deep encapsulation, further photodegradation of PAHs would not have occurred.

13. **Comment: LUCICP - AE recommended that the public comment period be extended until after the LUCICP was prepared. The group wanted the LUCICP to be subject to a CERCLA public review period.**

Commenter: Arc Ecology (Comment 4b)

Response: As explained in the RAP/ROD, the LUCICP will be prepared after the remedy is selected to document the roles and responsibilities of the parties involved in implementing this RAP/ROD. The major components of the LUCICP are presented at this time in the RAP/ROD specifically for review of the public. Completion of the LUCICP after this RAP/ROD public comment period enhances the community's opportunity to influence implementation of the selected land use controls.

14. **Comment: There is concern for the hazardous wastes in the wetland areas located within the wildlife habitat areas. The Seaplane Lagoon is also contaminated. Birds forage in this lagoon. Please keep us informed on the Navy's plans for remediation in these areas.**

Commenter: Community Member, Castro Valley, California

Response: Investigations and remedy decisions have not yet been completed for these areas. However, when complete, the remedial investigation reports, feasibility studies and proposed plans for remedial action will be made available to the public in the information repository and administrative record located at Alameda Point or the Alameda Public Library. Notification of the availability of the information will be made to all community members, and, as requested, the commenter has been added to the mailing list.

15. **Comment: Would like you to send me more information on how contaminated the soil is at the former Navy base in Alameda. What are the "hot spots"? How many are there? What is the cost to clean them up? What levels of which hazardous substances have been measured and where?**

Commenter: Community Member, Alameda, California

Response: Most of the information on the remedy, costs to clean up, and future remediation are included in the RI and FS reports. These reports are available to the public in the information repository and administrative record located at Alameda Point or the Alameda Public Library. This commenter has been added to the mailing list.

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July 20, 2000

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Comments
Remedial Action Plan/Record of Decision
for Marsh Crust and Sub-tidal Wetlands
Alameda Point Naval Air Station

Dear Mr. McClelland and Ms. Cassa:

On behalf of West End Concerned Citizens, CRC completed a review of the following Navy document:

> Tetra-Tech Environmental Management, Inc., "Remedial Action Plan/Record of Decision for the Marsh Crust and groundwater at the Fleet Industrial Supply Center Oakland, Alameda Facility/Alameda Annex, and for the Marsh Crust and Former Subtidal Area at Alameda Point," prepared for Department of the Navy, June 20, 2000

Since 1995, West End Concerned Citizens has encouraged the US Navy to adequately address health and environmental hazards in our community without meaningful results. West End Concerned Citizens has also encouraged Cal-EPA and the US EPA to provide "fair treatment" in regulatory enforcement, and cleanup decisions also without success.

The Remedial Action Plan and Record of Decision (RAP/ROD) that is the subject of CRC's comments, further demonstrates the Navy's unwillingness to address in a meaningful way the contamination the US Navy has caused Cal-EPA and the US EPA have acted contrary to their agencies' mission, policies, and regulations by allowing this 700 acre uncontrolled hazardous waste property to continue to poison residents and wildlife.

Undermining the credibility of the US Navy, Cal-EPA, and US EPA, as much as the unwillingness to address significant contamination, is the quality of the technical documents on which the US Navy, Cal-EPA, and US EPA have based their decision. Despite being reviewed and approved by the US Navy, Cal-EPA, and US EPA, these technical documents remain ripe with inaccuracies, inconsistencies, and unsubstantiated opinions.

Each of the following comments refers to the Negative Declaration, Remedial Action Plan and Record of Decision (RAP/ROD). The 39 comments have been organized into topics which include:

Community Acceptance
Previously submitted comments
Scope of the Marsh Crust Remedy
Contamination in the Marsh Crust/Subtidal Area
Remedial Action Objectives
Proposed Remedy
Summary of Site Risks
Marsh Crust Ecological Assessment
Groundwater Ecological Assessment

The following paragraphs detail CRC's concerns with the RAP/ROD and supporting documents contained in the administrative record.

COMMUNITY ACCEPTANCE

Comment No. 1 Alternative Evaluation Criteria

I am a resident who lives less than 75 feet from the marsh crust boundary shown in Figure 4 of the RAP/ROD As a community member who is adversely effected by this contamination I find the proposed remedy as unacceptable. I also believe it is inappropriate to select one of the three billion dollar cleanup alternatives without an adequate investigation of the contamination

Please revise the Marsh Crust Feasibility Study and RAP/ROD to indicate the communities disappointment with the effectiveness of the marsh crust and groundwater remedy, Cal-EPA's regulatory oversight, and the US Navy's often incompetent environmental analyses

PREVIOUSLY SUBMITTED COMMENTS

Comment No. 2: Disrespect for Residents of the surrounding community

Attached our two letters containing comments related to the RAP/ROD's administrative record contents. These comments prepared on the Feasibility Study were previously submitted to the US Navy on March 19, 1999 and February 17, 2000, but have been completely ignored to date. CRC by providing comments early, enabled the US Navy to consider these comments during, rather than at the end of the remedy selection process These comments enabled the US Navy to consider community acceptance during the completion of the Feasibility Study

As further example of the disrespect the US Navy has for residents and the environment we live in, the US Navy has chosen to needlessly delay addressing these comments until the RAP/ROD comment period. Please now address each of the individual comments in the two attached letters.

SCOPE OF MARSH CRUST REMEDY

Comment No. 3: Clarify Boundaries of the Marsh Crust Remedy

According to the Remedial Action Plan/Record of Decision (RAP/ROD):

> "The RAP/ROD selects the final remedy for the marsh crust at Alameda Facility/Alameda Annex and Alameda Point and the Former subtidal area at Alameda Point."[1]
>
> "Figure 4 shows the boundary of the subtidal area and tidal marshland at Alameda Facility/Alameda Annex and Alameda Point."[2]

Figure 4 shows the historical marsh, or the area that the US Navy, US EPA, and Cal-EPA have agreed is the boundary of the marsh crust contamination. The US EPA, US Navy, and Cal-EPA, however, have no intention of applying the proposed RAP/ROD remedy to the entire area of marsh crust contamination. The area of Marsh Crust contamination shown on Figure 4 beneath Woodstock Elementary School, Alameda Head Start, College of Alameda Day Care Center, City of Alameda Little League Fields, Woodstock Public Park, Neptune Public Park, and Poggi Street residences are not within the scope of the RAP/ROD remedy.

The US EPA, US Navy, and Cal-EPA apparently all agree that different standards of human health protection are appropriate at this time for different areas of the marsh crust contamination. Figure 4 of the RAP/ROD should be revised to accurately depict the areas of the marsh crust contamination where existing and future residents will be entitled to the protections that the RAP/ROD remedy provides. Figure 4 of the RAP/ROD should also be revised to accurately depict the areas of marsh crust contamination that will be specifically excluded from the protections provided by the RAP/ROD remedy.

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[1] RAP/ROD, p. 2-6
[2] RAP/ROD, p. 2-9

Comment No. 4: Extent of Marsh Crust/Croundwater Contamination

The RAP/ROD should be revised to include a table listing the borings that where used to determine the lateral extent of the marsh crust/subtidal area contamination.

Similarly, the RAP/ROD should be revised to include a table listing the monitoring wells used to establish the extent of groundwater contamination at the FISC/Annex.

Comment No. 5: Northern Boundary of Subtidal Area

The northern boundary of the Subtidal Area shown on Figure 4 has been drawn to exclude areas of Alameda Point that have been designated under the Community Environmental Reuse Facilitation Act (CERFA) to be "free of contamination." Despite this designation, a report from a City of Alameda public works project at Alameda Point indicates that the area is not free from contamination.

> Granulated asphalt, sand and soil with free-phase product, and product discolored soil were observed in the three borings from approximately 8 to 12 feet bgs. Since these materials were found in contact with first-encountered groundwater and were overlain by approximately 8 feet of compacted soil, baserock, and gravel, it appears they were purposefully placed during bay margin filling and land reclamation activities.[3]

Figure 4 of the RAP/ROD should be revised to show that the northern boundary of the marsh crust/subtidal contamination includes the CERFA parcels and extends to the Oakland Estuary.

Comment No. 6: Seaplane Lagoon

The Subtidal Area shown on Figure 4 extends into the Seaplane Lagoon. The results of radiological dating of sediments in the Seaplane Lagoon was provided at the July 1999 Alameda Point Restoration Advisory Board Meeting.[4] The results indicate a layer of contamination, with similar characteristics to the marsh crust, was deposited in sediments in the Seaplane Lagoon during World War II.

Figure 5 shows the depth to the top of the former subtidal area within the Seaplane Lagoon. The RAP/ROD states the opinion that the contamination

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[3] ACC Environmental Consultants, 1999, "Stockpiled Soil Profiling Report, Main Street Pup Station, Alameda, California" prepared for City of Alameda, April 26

[4] Gutierrez-Palmer, Inc., 1999, "Alameda Point Restoration Advisory Board Meeting Minutes, July

in the subtidal area occurred from 1880-1920. This statement in the RAP/ROD appears to contradict the results of the Seaplane Lagoon Sediment dating

A figure should be included in the Final RAP/ROD showing a cross section that relates the subtidal contamination layer depicted in Figure 4 and Figure 5 of the RAP/ROD with the layer of World War II contamination reported at the July 1999 RAB meeting. This figure would distinguish between the marsh crust contamination layer that is excluded from the Superfund boundaries and the Seaplane Lagoon contamination that is not.

Comment No. 7 Responsible Parties

Property impacted by marsh crust contamination has been transferred to the City of Alameda. The Record of Decision, however, is prepared solely by the US Navy under CERCLA authority granted by Executive Order No. 12580. The US Navy's CERCLA authority can only be exercised on property they do not own, if the US Navy is solely responsible for the contamination. The RAP/ROD should be revised to remove references to other polluters besides the US Navy, or the RAP/ROD should be prepared jointly by the City of Alameda and US Navy under the CERCLA authority of the US EPA.

CONTAMINATION IN MARSH CRUST/SUBTIDAL AREA

Comment No. 8 Historical Contamination Investigation

The RAP/ROD concludes that:

> "Based on available lithologic data the marsh crust appears as a discontinuous layer approximately 6 inches thick located intermittently between 10 to 20 feet bgs."[5]

The thickness of a contamination layer is normally determined by chemical sampling. Together observations on lithologic logs and chemical analyses indicate that the marsh crust contamination layer is consistently thicker than six inches. The results of the historical contamination investigation indicate that the marsh crust contamination is 2.5 to 6.5 feet thick in borings were it is found.

S41	no evidence of marsh crust contamination
S43	greater than 2.5 feet thick (odor 14.0-16.5 bgs)
S45	greater than 6.5 feet thick (odor 12.0 to 18.5 bgs)
S46	greater than 5.0 feet thick (sheen 14.0 bgs)
S47	greater than 2.5 feet thick (samples at 14.5 bgs and 16.5 bgs)

[5] RAP/ROD, p 2-8

Comment No. 9: FISC/Annex Borings

The RAP/ROD indicates that:

> 57 wells or boreholes extend to depths exceeding 10 feet were installed at Alameda Facility/Alameda Annex. Thirty -seven of the 57 wells or boreholes encountered the interface between the bay mud and fill soil where the marsh crust is expected to be found.[6]

To the contrary, 97 wells and boreholes were drilled to depths exceeding 10 feet. As shown in Table 1, 61 of the 97 wells or boreholes encountered the interface between the bay mud and fill soil.

TABLE 1: Boring Log Summary, Depths Greater than 10 Feet FISC/Annex Remedial Investigation Report

BORING ID	MARSH CRUST DEPTH (ft)	BORING DEPTH (ft)	BORING ID	MARSH CRUST DEPTH (ft)	BORING DEPTH (ft)
A008	18.0	21.5	MW7	18.5	20.0
A005	18.0	21.5	S01	not found	19.5
A006	17.0	21.5	S02	17.0	19.5
A007	18.0	19.5	S03	17.5	19.5
A009	23.0	26.5	S04	not found	17.0
A010	18.0	21.5	S05	not found	14.5
A011	18.0	20.5	S06	not found	15.0
A012	not found	19.5	S07A60	12.0	16.0
A013	17.5	21.5	S08	11.0	14.0
A014	18.0	21.5	S09	11.0	14.0
A015	18.0	21.5	S10	not found	14.0
A016	18.0	20.5	S11	not found	14.0
A017	17.0	20.5	S12	20.5	21.5
A018	20.5	21.5	S13	not found	14.0
A019	18.0	21.5	S14	17.0	19.0
A020	not found	21.5	S15	19.0	20.5
A021	19.0	21.5	S16	not found	14.0
A022	not found	21.5	S17	not found	14.0
A023	20.0	21.5	S18	not found	14.0
A024	20.0	20.5	S19	not found	14.0
A025	19.0	20.5	S20	not found	15.0
A026	19.0	20.5	S21	not found	15.0
A027	19.0	20.5	S22	not found	14.0
A028	19.0	20.5	S23	16.0	21.0
A029	19.0	25.5	S24	18.0	22.0
A030	19.0	22.0	S25	17.5	22.0
A031	20.0	21.5	S26	17.5	20.5
A032	not found	21.5	S27	not found	15.0

[6] RAP/ROD, p 2-8

TABLE 1: Boring Log Summary, Depths Greater than 10 Feet
FISC/Annex Remedial Investigation Report (continued)

BORING ID	MARSH CRUST DEPTH (ft)	BORING DEPTH (ft)	BORING ID	MARSH CRUST DEPTH (ft)	BORING DEPTH (ft)
A033	15.0	21.5	S28	not found	20.5
A034	20.0	21.5	S29	not found	14.5
A035	not found	20.5	S30	not found	15.0
A036	15.0	21.5	S31	not found	14.0
A048	not found	10.0	S32	19.5	20.5
A054	not found	14.0	S33	15.5	15.5
A058	9.0	10.5	S34	20.0	23.5
A069	8.5	11.5	S35	22.5	23.0
A070	not found	11.0	S36	not found	13.5
A086	not found	10.0	S37	not found	13.5
A103	not found	10.0	S38	not found	13.0
A111	16.5	18.5	S39	not found	13.0
EW1	not found	15.0	S40	not found	13.0
EW2	15.0	20.5	S41	not found	20.0
EW3	15.5	18.5	S42	8.0	14.5
MW1	18.5	25.0	S43	16.5	18.5
MW2	18.5	20.0	S44	22.0	25.0
MW3	18.0	22.0	S45	17.0	18.5
MW4	16.5	20.0	S46	19.0	20.0
MW5	18.5	20.0	S47	17.0	19.0
MW6	18.5	20.0			

Comment No. 10: FISC/Annex EBS Parcel 5

A benzo(a)pyrene concentration of 140 mg/kg was reported in soil sample P05-03 collected at 1.0 feet bgs. This contamination is not located at a depth that would prevent human exposure. The RAP/ROD should be revised to include a cross-section that shows contamination found at Parcel 5 is unrelated to the marsh crust contamination which is reportedly too deep and immobile to create the potential for exposure.

Comment No. 11: Alameda Point IR Site 25

IR Site 25 at Alameda Point contains significant benzo(a)pyrene and pentachlorophenol contamination. The shallow contamination depths at IR Site 25 do not prevent human exposure. The RAP/ROD should be revised to include a cross-section that shows contamination found at IR Site 25 is unrelated to the marsh crust contamination.

Comment No. 12: Alameda Point Underground Storage Tank Removals

Over the past 6 years over 100 underground storage tanks (USTs) have been removed from Alameda Point. A majority of these tanks were located in the marsh crust and subtidal area. USTs are normally installed to depth of over 12 feet bgs. The marsh crust contamination is at an average depth of 8 feet at Alameda Point.

The RAP/ROD should be revised to include a table showing the depth of each UST excavation and the corresponding depth of the marsh crust contamination at that location. If the marsh crust was encountered the RAP/ROD should provide the depth and concentration of PAHs that were found. The RAP/ROD should also be revised to include information on how the PAH impacted soil removed from the UST tank excavation was disposed of in accordance with RCRA regulations.

REMEDIAL ACTION OBJECTIVES

Comment No. 13: Specify Individual Contaminants of Concern

Contaminants in the marsh crust are collectively referred to only as semi-volatile organics in the RAP/ROD. Boring logs indicate that hydrogen sulfide, an acutely toxic gases, is found throughout the marsh crust. Chemical analysis of soils from the marsh crust showed the presence of benzene and other volatile aromatics. A table listing each of the semi-volatile organics and other contaminants found in the marsh crust, should be provide in the RAP/ROD.

Groundwater sampling at the FISC/Annex also shows that in addition to benzene, the shallow groundwater contains separate phase hydrocarbons, volatile aromatic hydrocarbons, oxygenated solvents, chlorinated hydrocarbons, polynuclear aromatic hydrocarbons and cyanide.

The RAP/ROD should be revised to specifically identify the chemical contaminants of concern in both the marsh crust and groundwater for which remedial action objectives have been established.

Comment No. 14: Specify Exposure Route/Receptors for Marsh Crust

The RAP/ROD identifies future construction work which may bring marsh crust contamination to the surface as the only exposure route that may result

in an unacceptable risk to human. The exposure routes and potential receptors would therefore include:

Inhalation of Dust	Residents, employee, construction worker
Contact with Soil	Residents, employee, construction worker
Wind Dispersion	Wildlife, Subsistence Fisherman
Stormwater Runoff	Wildlife, Subsistence Fisherman

Please revise the ROD/RAP to include a list of all exposure paths that the remedial action objectives are attempting to address.

Comment No. 15: Specify Exposure Route/Receptors for Groundwater

The RAP/ROD also identified incidental contact with groundwater for an extended period of time, or a failure to construct wells in accordance with current construction standards as the only potential routes of exposure. Neither groundwater flow into the Oakland Estuary nor volatilization of contaminants into buildings was considered a significant exposure route based on modeling results. The proposed RAP/ROD remedy for groundwater also identifies discharge of groundwater to surface waters as a potential route of exposure. In addition to the intentional discharge of contaminated groundwater to storm drains, infiltration of groundwater through storm drain pipelines is also an existing and significant exposure pathway.

The exposure routes and potential receptors would therefore include:

Discharge to Storm Drain	Wildlife, Subsistence Fisherman
Infiltration into Storm Sewer	Wildlife, Subsistence Fisherman
Groundwater Flow to Estuary	Wildlife, Subsistence Fisherman
Volatilization into Buildings	Resident, Schoolchild, employee
Contact	Resident, Car-Washer, Gardener

Please revise the ROD/RAP to include a list of all exposure paths that the remedial action objectives are attempting to address.

Comment No. 16: Acceptable Concentrations for each Pathway and Medium

The two previous comments identified nine exposure pathways for both the marsh crust and groundwater that may result in an unacceptable human health risk or environmental destruction.

The RAP/ROD should be revised to include a table showing the concentration of each chemical of concern (see Comment No. 13) in both groundwater and the marsh crust for each of the nine exposure pathways

Comment No. 17: Hydrochloric acid odors ignored.

"Hydro-chloride" odors ("slight" in S44, "strong" to "very strong" in S45) are reported in borings from the marsh crust historical contamination investigation, and in borings conducted at other IR sites at the FISC/Annex (A103, A104, A109, A112, A114, A115, S22, S26, S28, S32, S33, S34, S35, S38, S39). Nowhere in the RI Report, the FS or the RAP/ROD is this observation of an acutely toxic gas addressed.

Please revise the RI, FS, and RAP/ROD to include a complete discussion of the investigation, risk assessment, and cleanup alternative evaluation that was performed to address this contaminant.

PROPOSED REMEDY

Comment No. 18: "No remedy" Remedy inconsistent with CERCLA

The final remedy proposed for the marsh crust does nothing to reduce the toxicity, mobility or volume of the toxic pollution that has resulted from the US Navy's violations of state and federal environmental laws.

Please revise the RI, FS and RAP/ROD to include a complete investigation of the marsh crust contamination; prepare a FS that does not exaggerate contamination to make any cleanup alternative appears financially infeasible; and, prepare a RAP/ROD that is coherent, accurate, and proposes to accomplish meaningful cleanup of 700 acres of poisoned earth in the center of San Francisco Bay.

Comment No. 19: Remedy prohibits investigation/cleanup of groundwater

The proposed remedy would prohibit wells of any depth from being installed at the FISC/Annex site except for irrigation, construction dewatering and emergency fire-fighting supply.

The remedy would therefore preclude the installation of additional groundwater monitoring wells at the FISC/Annex site. The remedy would also prevent the cleanup of contaminated groundwater using extraction wells. The monitoring wells necessary to determine the downgradient plume extent for the contaminated groundwater found at IR Site 25 would be prohibited from being installed on the FISC/Annex site. The remedy would prevent the cleanup of this contaminated groundwater located less than 100 feet from the Oakland Estuary shoreline.

Comment No. 20: Remedy requires a permit

CERCLA remedies are exempt from local permit requirements and therefore the City of Alameda Marsh Crust ordinance is not consistent with federal law. The proposed CERCLA remedy for the marsh crust imposes a permit requirement on future cleanup excavations that may be conducted at the Alameda Point Superfund site.

Comment No. 21: Marsh Crust Ordinance is Discriminatory Remedy

The City of Alameda Marsh Crust ordinance does not address the marsh crust contamination found beneath George Miller Elementary School, Healthy Start and Coast Guard Housing. The RAP/ROD should be revised to indicate why the City ordinance is a necessary part of the marsh crust remedy, except in a federal housing project, a public pre-school, and a public elementary school.

Comment No. 22: Remedy does not address bay reclamation project

The Army Corps of Engineers as part of their port expansion project will remove several acres of the FISC/Annex to construct a turning basin. The marsh crust contamination will be directly exposed to the Oakland Estuary.

The RAP/ROD should be revised to proposes a permanent remedy (unlike the currently proposed remedy) that does not need to be revisited before it can be finalized.

MARSH CRUST ECOLOGICAL RISK ASSESSMENT

Comment No. 23: Scope of Ecological Assessment

The RAP/ROD indicates that the marsh crust contamination is located at a depth that prevents a completed pathway for ecological receptors. The RAP/ROD indicates that:

> "...development and construction would generally not be conducted in established habitats..."

The Catellus development project, however, intends to modify storm water outfalls in the seaplane lagoon, which is both a foraging area for the federally protected California Least Tern, and identified as impacted by marsh crust contamination. Since development and construction will be conducted in an established habitat of an endangered species it is appropriate that the scope of the ecological risk assessment for the marsh crust be expanded to evaluate the impacts of the entitled Catellus development project.

Comment No. 24: Cross Media Impacts

The RAP/ROD and supporting RI and FS fail to comply with the legal requirements for a RAP.[7] The marsh crust contamination clearly impacts groundwater quality, but these cross-media impacts were not considered in the FS or RAP/ROD. The marsh crust contamination (polynuclear aromatic hydrocarbons listed under EPA Method 610) has impacted groundwater quality. Impacted groundwater has impacted surface water quality. Impacted surface water has impacted food fish in San Francisco Bay. Impacted fish cause cancer, birth defects and developmental disabilities in persons exercising their right to fish from the shores of Alameda to provide subsistence to their families.

The RAP/ROD fails to address the marsh crusts impact on air quality. Methane, hydrogen chloride, hydrogen sulfide, hydrogen cyanide, and toxic organic compounds present in the marsh crust could impact indoor air. State laws would prohibit construction of a building within 2,000 feet of a landfill, which produces these toxic and explosive gases. According to the RAP/ROD the marsh crust was used as a hazardous waste dump from 1880-1920, and meets the definition of a hazardous waste property.[8]

The RAP/ROD should be revised to meet legal requirements by discussing the impact the marsh crust has on groundwater quality, surface water quality and indoor air quality.

SUMMARY OF SITE RISKS

Comment No. 25: Maximum concentration of benzene in soil gas

The RAP/ROD indicates that the maximum concentration of benzene found in soil gas is 1,700 $\mu g/m^3$. This maximum value is actually 17,000 $\mu g/m^3$. The RAP/ROD should be revised accordingly.

Comment No. 26: Air Samples from George Miller Elementary School

The results of air sampling at Miller Elementary School are referenced as an indicator that no unacceptable health risks exists inside or outside of buildings overlying benzene contaminated groundwater. The results of air sampling at Miller School, however, are inconclusive. Contradicting results for 2-hour composite samples and 8-hour composite samples led the

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[7] California Health and Safety Code Section 25356.1 (d)(2)
[8] California Health and Safety Code Section 25220 et al

sampling team to conclude that changing barometric pressure and changing air temperature influenced air sample results

As with groundwater monitoring, where a year of quarterly samples is used to reach a conclusion on impacts, air monitoring must be conducted under a variety of environmental conditions to ensure that representative samples are collected for health risk assessment purposes. As children attending Miller Elementary School are potentially exposed to carcinogens in indoor air, it is appropriate that a periodic indoor air monitoring be instituted until the benzene contamination beneath the school is removed. A similar recommendation for annual testing and cleanup was made by ATSDR for Marina Village Housing adjacent to Miller School were high levels of benzene and naphthalene have been found in both groundwater and in air inside residences.[9]

The RAP/ROD remedy should be changed to require indoor air monitoring in all inhabited structures constructed above the contaminated groundwater.

Comment No. 27: Risk Assessment for new school site.

The Newfields Risk Assessment for the new school site at FISC/Annex included an evaluation of risks to schoolchildren from indoor air quality impacts caused by groundwater contamination.

The Newfields Risk Assessment used the unconservative and unprotective assumption that the children attending this kindergarten through sixth grade school would have an average weight of 156 pounds (70 kg).

The Newfields Risk Assessment also assumed that schoolchildren could be exposed to greater concentrations of benzene than their adult teachers without experiencing the same level of risk. A conclusion that contradicts the greater susceptibility that children have to environmental contamination risks.

The Newfields Risk Assessment should be revised to evaluate the school site using the Preliminary Endangerment Assessment Manual as required by state law.[10] The RAP/ROD should be revised to reflect the results of a conservative, protective, and ARAR compliant risk assessment.

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[9] ATSDR, 1993, letter to Gerald Katz, EFA-West from Gwen Eng, ATSDR, February 16.

[10] California Education Code Section 17210 et al.

Comment No. 28: Fate of PAHs on the Marsh Surface

According to the Newfields Risk Assessment:

> These compounds would not be expected remain [sic] on the surface for any significant amount of time, as PAHs are sensitive to light and would be expected to photo-degrade readily once deposited on the high surface area of plants.[11]

This statement contradicts the marsh crust hypothesis PAHs were reportedly deposited on the high surface area of marsh grasses for 40 years without any significant chemical breakdown. The Newfields Risk Assessment or the marsh crust hypothesis should be revised to be consistent on the environmental fate of PAHs. The RAP/ROD should be revised to provide a consistent explanation of the source of contamination and the risks proposed by contamination.

ECOLOGICAL RISK ASSESSMENT

Comment No. 29: Seriously Flawed Model

Groundwater is reported to have no impact on water quality in the Oakland Estuary based on a groundwater flow and contaminant transport model detailed in the following administrative record document:

> 1998, Tetra-Tech EMI, "Final Technical Memorandum, Groundwater Contaminant Fate and Transport Modeling, Fleet and Industrial Supply Center, Oakland Alameda Facility/Alameda Annex, Alameda California," prepared for Department of Navy, October 2, 1998

The signatories of this document, are not identified as either registered civil engineers or registered geologists in the State of California. Neither of these individuals have placed a seal of a professional engineer or geologist, as required by law, on the final work product. The fact that these responsible individuals are not registered indicates that they are not legally allowed to offer groundwater modeling services in the State of California.

Licensing is intended to protect public safety from incompetent professionals. It is my professional opinion that the groundwater model memorandum was prepared by incompetent professionals, and represents a significant threat to public safety.

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[11] Newflieds, 2000, 'Baseline Human Health Risk Assessment, FISCO Alameda Facility Annex Site, Alameda, California," January 14, 2000 p 2-6

The RAP/ROD should be revised so conclusions are based solely on supporting documents prepared under the direction of licensed professionals

Comment No. 30: Assumptions about Model Boundary Fluxes

The groundwater model results did not include the volume of water entering and leaving the model domain. The calculated error in the groundwater flow solution was also not provided with the model results.

According to the groundwater model:

> Hydraulic communication between the shallow water bearing zone and the Merritt Sand Water Bearing Zone is not significant.[12]

To the contrary, significant vertical gradient and communication exists between the Shallow Water Bearing Zone and the underlying Merritt Sand Water Bearing Zone. An estimate of the volume of water that would enter the model domain due to upward flow from the Merritt Sands should be provided with the model flow solution. This flow rate should be compared to the flow rates in the model solution to demonstrate that groundwater entering the model domain from the underlying boundary is "not significant."

The modelers made a similar unsubstantiated assumption:

> Rainfall infiltration recharge to the Shallow Water Bearing Zone is not significant.[13]

This assumption is based on the modelers belief that a majority of the model domain is paved. The model boundaries however include IR02 which is an unpaved scrapyard. The model boundaries also include the College of Alameda track, the City of Alameda Little League Field, generously landscaped Coast Guard Housing, the Main Street Linear Park, Estuary Park, and Railroad Tracks that are all predominately unpaved.

In addition to the annual average rainfall of about 20 inches, these areas are irrigated. Water service throughout the FISC/Annex is plagued by leaking pipelines. Rainfall, irrigation, and leaking water pipelines add up to a significant volume of water that is entering the model domain but ignored by the modeler.

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[12] Tetra-tech, 1998; p 2-6

[13] Tetra-tech, 1998, p 2-6

An estimate of the volume of water entering the model domain should be compared to the flow solution to demonstrate that rainfall, irrigation and leaking pipelines are "not a significant" contributor to the water balance.

Comment No. 31: Assumption of Fraction of Organic Carbon Values

The groundwater model assumption concerning the fraction of organic carbon was:

> The fraction of organic carbon used in the model, 0 0037 (3,700 mg/kg or 0.37 percent),„is an average value based on the FISCO soil analytical results TOC soil analytical data for individual samplings and the average TOC concentration are presented in Table 5 [14]

Table 5 footnotes indicate that the source of TOC data is the 1996 Remedial Investigation Report prepared for the FISC/Annex. This footnote is incorrect. The TOC data in Table 5 does not appear anywhere in the FISC/Annex RI Report. Table 5 actually contains the analysis results for TOC samples collected from Alameda Point.[15]

No summary of TOC data or laboratory reports were found in the FISC/Annex RI Report. The text of the RI Report however provides the following information:

> The results of laboratory analysis indicate the percent of organic carbon in the samples ranged from 0.9 percent in sample D4-70 to 11.4 percent in Sample S15 5. Sample A38-9.0 contained a small amount of organic peat material which was not classified as soil by the laboratory, but was analyzed separately and reported to contain 85.3 percent organic carbon [16]

Clearly the value used in the model for fraction organic carbon have been misrepresented. The values collected from the model domain are significantly greater than the values used in the model. The effect of underestimating the fraction of organic carbon is to reduce the mass of benzene that is found in the model domain.

Comment No. 32: Assumption of Porosity Values

The groundwater model assumed soil porosity values of 0.1 to 0.3. The porosity value of 0.1 is not a realistic value for the unconsolidated coarse

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[14] Tetra-tech, 1998, p 3-10

[15] As further example of the lack of quality control, the Final RI Report for Operable Unit No. 1 failed to report the results of TOC analysis that were included in Table 5 of the groundwater modeling technical memorandum.

[16] PRC, 1996, "Fleet Industrial Supply Center, Oakland, the Annex Site, Alameda California, Final Remedial Investigation Report," January.

grained sediments found in the model domain. For instance, if the soil density is approximately 1.6 gm/cm^3, and the water-filled porosity is 0.1, the water content of saturated soils in the domain would be less than 7 percent.

The saturated coarse-grained sediments are actually expected to have water contents of approximately 40 percent, and porosity values of 0.35 to 0.45.

The unrealistic porosity value of 0.1 used in the model would result in unrealistic flow rates and model solutions that are unrealistic.

Comment No. 33: Potentiometric Surface Elevation

The potentiometric surface elevations gathered from differently constructed monitoring wells, and the constant surface elevation used for domain boundary at the tidaly influenced Oakland Estuary, are not representative of groundwater elevations in the model domain.

Elevations collected from S43, S45, and S47, wells which contain two to five foot screens set at a final depth of 18.5 feet deep will have groundwater elevations higher than wells constructed in identical locations, but screened from first encountered groundwater to a depth of 18 feet bgs.

Comment No. 34: Known Contamination Sources Ignored

Within the model domain, significant benzene contamination is found in groundwater beneath Marina Village Housing, and Estuary Park. These source areas were not considered in the groundwater model. This results in unrealistic model conclusions because the mass of benzene in the model domain has been significantly underestimated.

Comment No. 35: Flow Model Calibration

No calibration of the flow model was performed.

Comment No. 36: Contaminant Transport Model Calibration

The contaminant transport model calibration reportedly involved running 100 random simulations using June 1994 as the initial condition. The model simulation which best matched known plume conditions in year one and year two of the model (groundwater sample results from 1995-96) was selected as the best simulation.

The model calibration ignores the fact that the downgradient extent of the groundwater plume emanating from the FISC/Annex has not been determined. Though efforts have been made to determine the plume extent,

the results of hydro-punch boring have not been confirmed with the installation of monitoring wells

The information necessary to complete the model calibration is therefore unavailable Until data on the extent of groundwater contamination is collected, any attempt to calibrate model results using the methodology outlined by the modeler is ludicrous

Comment No. 37:

According to the RAP/ROD:

> .. the modeling concluded that benzene plumes would not migrate beyond the boundaries of the Alameda Facility/Alameda Annex.[17]

This statement should be revised because it is clear that the benzene plumes have and will continue to migrate beyond the boundaries of the Alameda Facility/Alameda Annex. These benzene plumes which originate at source areas in the Alameda Facility/Alameda Annex are shown beneath George Miller Elementary School and Coast Guard Housing at Alameda Point

Comment No. 38: Indicator chemicals for ecological impacts.

According to the RAP/ROD:

> Because benzene was shown not to pose an unacceptable ecological risk, the other less soluble and less toxic contamination in groundwater, also do not pose an unacceptable risk.[18] (p 2-17)

Since their are contaminants in groundwater that are far more toxic to ecological receptors than benzene, this statement would seem to indicate that these more toxic contaminants (PAHs) would still represent an unacceptable ecological risk.

Polynuclear aromatic hydrocarbons (total of all compounds from EPA Method 610 analysis) are found in groundwater at concentrations much higher than benzene, and much higher than the San Francisco Bay Water Quality Control Plan objective of 15 µg/L. These compounds are more toxic to ecological receptors than benzene because they are bioaccumulative.

The groundwater model should be revised to evaluate the migration of PAHs towards the Oakland Estuary, and the RAP/ROD should be revised to clarify that PAHs are more toxic to ecological receptors than benzene.

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[17] RAP/ROD, p 2-17
[18] RAP/ROD, p 2-17

Comment No. 39 Alameda Point Operable Unit 4

No ecological risk assessment has been prepared for the Seaplane Lagoon which is located within the subtidal area. Please revise the RAP/ROD to include the results of a quantitative ecological assessment for marsh crust contaminants found in the Seaplane Lagoon.

Closing

The US Navy has caused or permitted environmental contamination. Therefore, the US Navy has not only a legal, but an ethical and moral obligation to cleanup that contamination in a manner that at a minimum, protects human health and the environment and minimizes burdens on future generations. I am disappointed that the US Navy is unwilling or unable to meet this obligation in its former host community of Alameda.

Respectively submitted,

Patrick G. Lynch, P.E.
Civil/Chemical Engineer

Attachments: Comments Draft Feasibility Study, March 19, 1999
Comments Draft Final Feasibility Study, February 17, 2000

cc: Mary Sutter, Alameda Point RAB
Mary Rose Cassa, DTSC
Philip Ramsey, US EPA

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February 17, 2000

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Mr. Dick Hegarty
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Comments
Draft Final Feasibility Study
Marsh Crust, Sub-tidal Area and Groundwater
Alameda, California

Dear Messrs. McClellan and Hegarty:

Clearwater Revival Company (CRC) has reviewed and prepared the following comments on:

> 2000, Tetra Tech Environmental Management, Inc., "Draft Final Feasibility Study for the Marsh Crust and Groundwater at the Fleet Industrial Supply Center Oakland Alameda Facility/Alameda Annex and Feasibility Study for the Marsh Crust and Former Sub-tidal Area at Alameda Point," prepared for the Department of the Navy, January 6.

Based on our review of this document CRC has concluded that the Feasibility Study (FS) for the marsh crust remains the poorest quality document prepared by the US Navy's environmental restoration program to date. CRC concluded that the FS does not meet the standard of professional care, nor does the FS comply with regulatory guidance for the investigation and selection of a remedy at a CERCLA site. We have detailed our comments below.

Comment No. 1 - Failure to address Clearwater Revival Company's March 19, 1999 comments.

The Draft Final FS fails to address comments prepared by CRC on the previous version of the Draft FS. The failure of the Navy to respond to community comments indicates that community acceptance was not considered during the alternative evaluation process as required by CERCLA. These previous comments are being resubmitted and can be found in Attachment A. The US Navy has a legal obligation to consider these comments concerning the community's acceptance of the proposed remedy in both its evaluation of alternative remedial actions, and in the Navy's

selection of a preferred remedy. The Navy's inability to respond to comments addressing technical deficiencies in the FS demonstrates the technical inadequacy of the FS report.

Comment No. 2 - FS and Key supporting documents withheld from public.

The FS was withheld from the public until following the completion of an Alameda City Council meeting on January 18, 2000. At this Council meeting a vote was taken on the Marsh Crust Ordinance, the sole component of the remedy the FS proposes. Had the FS been made available on or about January 6, 2000, the document could have influenced the City Council's vote on the Marsh Crust Ordinance.

In addition to delaying the release of the FS for the Marsh Crust, several of the studies cited in the FS have never been made available to the public. There is no way for the community to substantiate claims made in the FS without access to this information during the public comment period. Key documents that are not available to the public include:

> 1999, Tetra-Tech EMI, "Alameda Point/Alameda Annex Benzene Soil Gas Investigation Summary," October 20.
>
> 1999, Newfields, Inc., "Draft Baseline Human Health Risk Assessment, FISCO Alameda Facility/Annex Site, Alameda, California," November.

If the Navy insists on withholding such key documents from the community, the community will have no basis for determining if the Navy's proposed remedy is acceptable.

Comment No. 3 - The marsh crust contamination is the result of open-burning conducted by the US Navy.

Sampling evidence and eyewitness accounts indicate the contamination that is referred to as the marsh crust resulted from the Navy's open-burning of metal parts to facilitate recycling. In the 1960's, waste oils, waste fuels, and waste solvents were burned during this salvage operation. These hazardous wastes are the sole source of the characterized marsh crust contamination.

Comment No. 4 - Southern Boundary of Marsh Crust Changed between Draft and Draft Final versions of FS.

It is unclear what information the US Navy relied on to adjust the boundaries of the marsh crust beneath Woodstock Elementary School and private residence in my neighborhood. Please identify the soil boring logs and sample analyses data that was used to develop Figure 1-11: Depth to top

of Subtidal Area and Tidal Marshland, Alameda Facility/Alameda Annex and Alameda Point.

Comment No. 5 - The cost estimates used in the FS are inaccurate.

According to the US EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA cost estimates in the FS "...are expected to provide an accuracy of +50 percent to -30 percent and are prepared using data available from the RI." Since a Remedial Investigation of the marsh crust and subtidal area was conducted on less than two percent of the alleged area of contamination, the area affected by the marsh crust contamination may be 30 percent less then speculated. As a results, the cost estimates in the FS would fail to meet the level of accuracy expected by the US EPA.

Closing

The US Navy has caused or permitted environmental contamination. Therefore, the US Navy has not only a legal, but an ethical and moral obligation to cleanup that contamination in a manner that at a minimum, protects human health and the environment and minimizes burdens on future generations. I am disappointed that the US Navy is unwilling or unable to meet this obligation in its former host community of Alameda.

Respectively submitted,

Patrick G. Lynch, P.E.
Civil/Chemical Engineer

Attachment

cc: Mary Sutter, Alameda Point RAB
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March 19, 1999

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Comments
Base-wide Feasibility Study
for Marsh Crust and Sub-tidal Wetlands
Alameda Point Naval Air Station

Dear Messrs. Edde and Hegarty

Clearwater Revival Company (CRC) has prepared these comments on behalf of West End Concerned Citizens.

CRC completed a review of the following Navy document:

> Tetra-Tech Environmental Management, Inc., "Base-Wide Focused Feasibility Study for the Former Subtidal Area and Marsh Crust and Groundwater, DRAFT" prepared for Department of the Navy, February 20, 1999

Based on our review of this document, and independent studies we have completed, CRC has come to the conclusion that the disposal of hazardous wastes by the US military at the FISC/Annex scrap yard has significantly contaminated groundwater beneath that site. This contaminated groundwater has migrated beneath a public school and residential housing and into the Alameda/Oakland Estuary. The discharge of contaminated groundwater from the US military property and into the Alameda/Oakland Estuary violates the San Francisco Bay Water Quality Control Plan (Basin Plan), is a principle source of Water Quality Degradation, and results in the toxic poisoning of people who eat fish from San Francisco Bay.

Despite the US Navy's moral and legal obligations, the Feasibility Study (FS) fails to acknowledge or address this significant environmental and public health problem.

Comment No. 1 - Misappropriated Cost on Community.

Under a 1984 Executive Order the Department of Defense assumed the US EPA's regulatory role under Superfund at Navy installations. The Navy is

therefore required to assume the US EPA's posture and conduct Navy Superfund programs in "strict technical compliance" with the National Contingency Plan. The following pages of comments clearly indicate the Navy's failure to meet this standard, creating a disparate impact in the West End.

The cost to come into "strict technical compliance" should be borne by the Navy and not the community. The community's cost to review the draft "marsh crust" FS is $2,495.00. This money is wasted because the document is of such poor quality a future draft will be required. These duplicative time and costs to the community to accommodate the large number of poor quality Navy environmental documents puts a tremendous burden on the West End community.

The Navy should use independent, objective and competent scientists to complete future environmental investigation and studies.

Comment No. 2 - Fails to comply with Executive Order No. 12898.

Federal agencies are required to develop environmental strategies that identify and address disproportionate exposure and adverse health effects of their activities. The FS and other environmental cleanup activities at NAS and FISC/Annex have not complied with state environmental standards nor have they complied with the generally accepted standards of professional care. The Navy's activities have therefore created, and continue to perpetuate a disproportionate exposure to toxic chemicals and a disproportionate health burden in the West End of Alameda. The West End is a low-income ethnically-diverse community. Until the Navy commits to an acceptable standard of cleanup at its toxic waste sites, a great injustice continues to be done to residents of the West End.

A clear indication that the US Navy has and continues to violate the Civil Rights of West End residents is the statement taken from a Draft Corrective Action Order prepared by the State of California in January 1999. This draft order cited: "continuing efforts by the Navy and the Department of Defense to challenge state regulatory authority and to unilaterally dictate reduced levels of regulatory oversight." The State of California has joined West End resident in accusing the Navy of racial discrimination. As a result of the Navy's discriminatory waste management practices a tremendous burden has been placed on the community (please see Comment No. 1).

Comment No. 3 - Fails to comply with Community Acceptance Criteria.
The FS is not acceptable to the community, because it does not comply with the Community Acceptance Criteria shown in Attachment A (please see Comment No. 1).

Comment No. 4 - Community Acceptance is a threshold criteria.

As a result of the poor quality of the FS, community acceptance has been required to act not as a modifying criteria, but a threshold criteria. The FS is not protective of human health and the environment, nor does it comply with Applicable or Relevant and Appropriate Requirements (ARARs). The community must identify ARARs and exposure pathways that the Navy has ignored placing tremendous burden on the community (please see Comment No. 1).

Comment No. 5 - All property owners must submit FS.

The 727 acres reportedly covered by the FS includes property that is not owned by the Navy. For instance, Woodstock Elementary School, Woodstock Park, future Main Street Park, Union Pacific Right-of-way, Bureau of Electricity Power Plant, Gateway Alameda, single family homes and rental properties are located within the "marsh crust" boundaries. By defining the extent of contamination as the former marsh, the Navy is required to submit a FS together with the owners of each of the impacted properties.

The "marsh crust" hypothesis makes the unsubstantiated conclusion that these privately-owned properties are contaminated. What notification has been made of property owners impacted by the marsh crust contamination? By what right can the US Navy make unsubstantiated conclusions that impact the value of private property? This hypothetical contamination may have originated on Navy property and migrated onto these public and privately owned properties. In which case the Navy is guilty of trespass and negligence.

What is the impact on private property owners who wish to implement a more effective cleanup alternative? Immediately to the East of the FISC/Annex a private property owner completed substantial soil remediation on a former marsh site and received a no further action letter from the County of Alameda. This investment in environmental restoration by a private property owner demonstrates the feasibility of cleanup of the hypothetical "marsh crust" contamination. The future impact of Navy pollution migration on this remediated property should be a consideration in the Navy's cleanup alternative analysis. The current FS infringes on the property rights of others, and places a tremendous burden on the community (Please see Comment No. 1)

Comment No. 6 - No RI/FS Workplan

No Remedial Investigation/Feasibility Study (RI/FS) Work Plan was developed to determine the validity of the unsubstantiated "marsh crust" hypothesis Polynuclear aromatic hydrocarbons (PAHs) are dense non-aqueous phase liquids (DNAPLs). The borings conducted at FISC/ANNEX and Alameda Point rarely extended to the depth of a low permeability strata to evaluate for the presence of DNAPLs. When borings were extended to low permeability strata (former marsh surface) high levels of DNAPLs were encountered. These observations are entirely consistent with the expected behavior of Navy spills The failure to evaluate for the presence of DNAPLs places a tremendous burden on the community (Please see Comment No. 1)

Comment No. 7 - No Remedial Investigation (RI) Report

The FS was not proceeded by a Remedial Investigation (RI) as required by CERCLA. It is evident that much of the 727 acre "marsh crust" area has not been subjected to any type of RI. Cleanup alternatives valued at $0.8 to 1.2 billion dollar were prepared for a 727 acre site. The FS is based on samples from a 10 acre portion, exclusively. The OU-1, OU-2 and OU-3 RI Reports for Alameda Point are non-existent or still in draft form. The community and Restoration Advisory Board have reviewed three drafts of the OU-1 RI Report and found each draft to be unacceptable.

The results of Environmental Baseline Surveys and other environmental investigations in this area have been ignored during preparation of the FS largely because the data presented in these documents do not support the "marsh crust" hypothesis. CERCLA process was ignored in the preparation of the FS placing a tremendous burden on the community (Please see Comment No. 1)

Comment No. 8 - State ARARs are ignored.

State ARARs were ignored during the preparation of the RI and FS. For example, the State constitution protects the right to fish; the Profession and Business Code sets standards for engineering competence, ethical practice, and consumer complaints, and the San Francisco Bay Water Quality Control Plan (Basin Plan) sets numerical Water Quality Objectives. The Navy's infringement on these constitutional and other legal protections places a tremendous burden on the community (Please see Comment No. 1)

Comment No. 9 - Supporting Documents prepared by Unlicensed Professionals.

The Final RI for the FISC/ANNEX was not prepared under the direction of a registered civil engineer or registered geologist and therefore does not comply with ARARs. The Groundwater Beneficial Use Study, the Fate and Transport Modeling and the Risk Assessment were not prepared by licensed professionals. No professional-of-record has placed their seals on the final document as required by the California Business and Professions Code The failure to comply with laws intended to protect public safety from the unlicensed practice of civil engineering and geology a tremendous burden is placed on the community. (Please see Comment No. 1)

Comment No. 10 - Highly Speculative "Marsh Crust" Hypothesis

Somewhere, someone has reached a conclusion that pre-World War II activities are responsible for contamination throughout the 727 acre subtidal and marsh crust area. There is a paucity of data to support such a far reaching conclusion.

Navy waste management practices included dumping liquid wastes onto the ground, or down storm drains In either instance the observed "marsh crust" contamination is consistent with a Navy pollution sources. Unless data is produced showing the careful management and disposal of hazardous materials and toxic wastes during the 50 years the Navy operated at the site they should take full responsibility for observed contamination and the evident health and environmental impacts in the surrounding community. The cumulative impact of misappropriated waste management costs has, and continues to place a tremendous burden on the community. (Please see Comment No. 1).

Comment No. 11 - Date the contamination

Perhaps the easiest way to determine when the "marsh crust" area was contaminated is to look for synthetic chemicals and determine the dates these chemicals where first manufactured. What is pentachlorophenol, a chemical first manufactured in 1936, doing in the "marsh crust?" According to the FS, the "marsh crust" contamination is from a Chevron Refinery that closed in 1901 and two PG&E Gas Plants that were closed in the 1920s.

Instead, the "marsh crust" contamination is the result of US Army and US Navy activities at the site. The Navy's poorly reasoned hypothesis are an attempt to avoid responsibility for its own waste management practices which places a tremendous burden on the community (Please see Comment No. 1).

Comment No. 12 - Basin Plan Water Quality Objectives

No numeric ARARs were identified in the FS. Curiously, Chapter 5 of the RI prepared for the FISC/Annex Toxic Waste Sites, numerical values from the Basin Plan are cited. Basin Plan numerical standards, as well as the non-degradation standard, are ARARs It is evident the discharges of PAHs from FISC/Annex groundwater, and storm water outfalls continue to exceed Water Quality Objective of 15 µg/L total PAHs listed in Table 4B of the Basin Plan. These are instantaneous rather than average standards. These standards cannot be achieved with tidal action which the Water Board considers "dilution by previously discharged wastes." Several of the alternatives, including the preferred alternative do no comply with this threshold ARAR.

In addition to the numerical standards the non-degradation policy prohibits any degradation of groundwater and surface water quality. Ongoing discharges of toxins to San Francisco Bay through leaking storm sewers, and direct groundwater discharge continue to occur Several of the alternatives evaluated in the FS do not comply with this threshold ARAR. The impact of poor water quality in San Francisco Bay on fisherfolk, places a tremendous burden on the community (Please see Comment No. 1).

Comment No. 13 - Groundwater Beneficial Uses

The marsh crust as depicted on figures is located 75 feet from my residence and underlies many of my neighbor's homes and the nearby Woodstock School. No information is available about the depth of the marsh crust in the area around my home though I suspect it is very shallow. I have a subterranean basement located eight feet below grade. This basement contains a pump to remove groundwater that enters through the walls and floor during periods of high groundwater. The groundwater infiltration rate from November to April can range from 0.33 to 5 gallons-per-minute. Why should the community bear the tremendous burden of sampling this groundwater for Navy toxins to ensure our community is not being poisoned? (Please see Comment No. 1)

Comment No. 14 - Groundwater Modeling

How can a groundwater plume, the lateral extent of which is unknown, be modeled? Does the model accurately predict past and previous groundwater monitoring results? How accurate is this model calibration?

How can a groundwater plume be modeled in an area where many of the contaminants are present above their respective soil saturation

concentrations? Pure product would be present, requiring the modeling of a third phase. Model assumptions for dilute solutions would not be valid.

The over simplified groundwater model does not consider other identified plumes one at the northwest corner of Parcel 178, Marina Village Housing (EM-West , May 1988) and the other at Alameda Point Installation Restoration Site 25 Estuary Park Toxic Waste Site. Data from these sites contradict model results. The over-simplified plume model does not consider the results of samples collected during the week of February 25, 1999, from Parcel 181 North Housing.

Navy plumes have entered cracked storm drains and both impacted San Francisco Bay and left fuel puddles in parking lots. These preferred migration pathways were not considered during the development of the over-simplified groundwater model.

The over simplified groundwater model does not adequately address the long-term effectiveness of the "no action" and "control" alternatives. Contaminated groundwater continues to enter San Francisco Bay where it places a tremendous burden on the community. (Please see Comment No 1)

Comment No. 15 - Significance of Exposure underestimated

Alameda Point Installation Restoration Site 3 is located within the 727 acre "marsh crust." The only RI Report for this site released to date was a draft report issued in 1998 (Tetra-Tech, 1998 "Remedial Investigation Report Operable Unit No. 1, Alameda Point Naval Air Station," prepared for US Navy. February). In this Draft RI, tetrahydrocannabinols' were reported in high concentrations in several of the soil gas samples collected from the site (see Table 6-1a, OU-1 RI).

The release of the "marsh crust" FS indicates that the Navy finds it acceptable to have some level of public exposure to tetrahydrocannabinols at Navy toxic waste sites. This contradicts the Navy's policy of "zero tolerance" for tetrahydrocannabinol exposure among its troops and employees. In other words, a Navy employee could be discharged from his employment because their urine contains tetrahydrocannabinols as a result of unintentional exposure to Site 3.

I find myself in a similar situation. As a hazardous waste site worker I engage in medical monitoring as a prerequisite to site work. If evidence of toxic poisoning is discovered during medical monitoring, I don't work. My unintentional residential and recreational exposure to Navy toxic wastes may ultimately effect my earning potential as well as my health.

The Navy should adopt a "zero tolerance" policy for public exposure to Navy toxic wastes and cleanup the "marsh crust" accordingly The Navy's maximum exposure level philosophy for carcinogens that has been utilized in the risk evaluation of 1,700 acres of contaminated land places a tremendous burden on the surrounding community (Please see Comment No. 1).

Comment No. 16 - Costs to Implement Alternatives

It is entirely incorrect to suggest that a "No Action" alternative on a 727 acre future development site will have no costs associated with residual contamination. To misappropriate the costs of a negligent cleanup plan is incredibly self-serving. The soil properties in the former marsh will require a great deal of earth work below the marsh crust to install services and pile foundations. Substantive costs will be incurred for sampling, monitoring, employee training, and toxic waste disposal during future redevelopment under the "no action" or "control" alternatives

This is perhaps best indicated by the cost already incurred by the City of Alameda in relationship to the property. The City has budgeted over $75,000 for consultants to ensure city employees do not encounter buried contamination The city has incurred costs to remove contaminated groundwater from underground utilities The city has to sub-contract work in contaminated areas for lack of Public Works crews trained to do hazardous material work. These are all costs associated with a "no action" or "control" alternative. These failure to recognize these costs during the alternative analysis represent a tremendous burden to the community (Please see Comment No. 1).

Comment No. 17 - Institutional Controls are not effective.

Substantial evidence of the ineffectiveness of institutional controls in preventing worker exposure to toxins, preventing the improper disposal of hazardous wastes, and preventing air and water pollution have been documented throughout Alameda Point and the FISC/Annex. Substantial funding for enforcement of institutional controls is needed to ensure future compliance. These costs into perpetuity should be considered in the FS alternative analysis Misappropriating these costs places a tremendous burden on the community (please see Comment No. 1)

Comment No. 18 - Long-term effectiveness not evaluated.

FS alternatives did not consider the cost to perform groundwater monitoring, storm water monitoring, and indoor air quality evaluations, to

verify model results and other assumptions made during the human health risk assessment. Any alternative that leaves contamination in place, should provide an effective monitoring network to ensure contaminant migration and degradation occur. The failure to demonstrate the effectiveness of the preferred alternatives places a tremendous burden on the community (please see Comment No. 1).

Comment No. 19 - Inhalation Risk greatly underestimated.

The ASTM Risk Based corrective action standard provides a risk-based screening level for the groundwater-to-indoor-air pathway of 23.8 µg/L benzene at a one-in-one-million cancer risk. By comparison, the Risk Assessment for the FISC/Annex associates a similar cancer risk through the indoor air pathway to a benzene concentration in groundwater of 1,400 µg/L.

Interestingly the ASTM standard is based on the federal cancer slope instead of the California cancer slope and would be reduced by a factor of five under California Risk Assessment standards to 4.76 µg/L. Furthermore the ASTM, evaluated a site with a depth to groundwater of three meters. At the FISC/Annex groundwater often is found at shallower depths representing a greater risk. The unprotective indoor air risk models used by the Navy place a tremendous burden on the community (please see Comment No. 1).

Comment No. 20 - Methane and landfill gases.

Investigations at Site 3 located within the "marsh crust" boundaries revealed high levels of methane gas in shallow soils. The State Health and Safety Code requires all cleanup plans for landfill gas areas to be approved by the Integrated Waste Management Board. The Navy's failure to comply with the state Health and Safety Code places a tremendous burden on the community (please see Comment No. 1).

Comment No. 21 - Ecological Assessment.

An unlined drainage channel which runs alongside Main Street is the only remnant of the former marsh. The endangered Salt Marsh Harvest Mouse has been observed in this channel.

The water depth in the channel is consistent with groundwater depths in the area. Contaminated groundwater appears to enter the channel from Alameda Point IR Site 7 and from underneath Marina Village Coast Guard housing. This groundwater contains contaminants at levels which exceed Basin Plan requirements for salt marsh habitats. The introduction of navy contamination into the food chain places a tremendous burden on the community (please see Comment No. 1).

Comment No. 22 - Historical Waste Practices.

One of the principle wastes produced by industries operating at Alameda Point prior to the US Navy was a mineral waste, calcium carbonate. The Borax Company who produced this waste did not arrange this mineral waste in a neat pile. Instead this mineral waste was disposed of in pattern coincident with the shape of the Navy breakwater and the shoreline of the sea plane lagoon In this case the Navy apparently exhumed the borax company's waste disposal site during filling of the Naval Air Station.

Even with pre-existing contamination the Navy has played a large role in distributing the contamination throughout the environment.

Closing

CRC looks forward to the opportunity to review the Draft RI/FS Workplan for the marsh crust and subtidal area. CRC looks forward to the opportunity to review the Draft RI Report for the marsh crust and subtidal area. Having completed those reviews, CRC looks forward to the opportunity to review a FS Report for the marsh crust and subtidal area that meets "strict technical compliance" with the National Contingency Plan, and responds in a meaningful way to the community's concerns indicated above

The collateral damage caused by the gross negligence of the US Navy's environmental restoration program must end

Respectively Submitted,

Patrick G. Lynch, PE
Civil/Chemical Engineer

Attachment: Community Acceptance Criteria

Community Acceptance Criteria

1. Ensure cleanup completion ten years after the Navy's last scheduled Record of Decisions, up to the year 2050 for monitoring of residual contamination. That allows one year of cleanup per each year of Navy occupancy.

2. Complete the cleanup project in a timely manner. Set a schedule for cleanup activities and stick to it.

3. Cleanup property near existing neighborhoods first. Residents deserve to be protected from exposure to contamination. As fence line property is close to existing infrastructure, it makes the most sense to redevelop this land first.

4. Cleanup levels should support property use that is unrestricted by environmental contamination to ensure future land use flexibility and protection of future occupants. Without full cleanup to standards appropriate for residential use, the residual contamination will restrict the future use of the property.

5. Create buffer zones around special use areas to ensure protection of the community and the environment. The following are recommended buffer zones:

a) Residences, schools, parks and daycare facilities: 250 ft. buffer zone with most protective cleanup level (residential level cleanup without property use restrictions);

b) Private wells and subterranean basements: 750 ft. buffer zone with cleanup to drinking water standards to ensure protection at potential groundwater contact points;

c) Shoreline: 250 ft buffer zone with cleanup of soil and groundwater to standards protective of food web;

d) Buried utility lines: 250 ft. buffer zone with cleanup of groundwater to standards protective of the aquatic food web.

6. Investigate impacts of the migration of pollution off of the base. The movement of contamination onto private and City property adjacent to the base and to shore areas in the Oakland Harbor and San Francisco Bay has occurred. The Navy has the responsibility to extend its investigation into these areas to determine the limits of its contamination and clean up accordingly.

7. Eliminate contamination of the Bay ecosystem by fully investigating and remediating contaminated sediment surrounding the base.

8. Soil handling should be properly controlled to minimize releases of contaminated soil into the air, onto adjacent properties, into storm drains, and into the Bay. A schedule and budget which covers the complete project should be in place prior to initiation of removal activities.

a) Excavation activities: No excavation when wind speed exceeds 10 mph. Air monitoring should be conducted for excavations close to sensitive areas and whenever the excavated soil volume exceeds 1,000 cubic yards.

b) Stockpiles: Soil piles should be placed at least 2,000 feet from residences and 500 feet from wetlands and the Bay. They should be immediately covered, with adequate storm water runoff protection. They should be inspected daily and repairs made immediately.

c) Transportation: Soil transported off of the base should be adequately covered and should follow approved transportation routes.

9. Involve public in cleanup decisions. The public needs to be informed of the risks from contaminated areas. A public record of cleanup activities should be updated regularly, maintained and made accessible at a local public library.

10. Adhere to existing cleanup practices. Following existing California and federal cleanup laws and policies to reduce the community's burden to learn multi-processes or to seek outside professional assistance. The Navy should also demonstrate success of similar cleanup processes at comparable federal facilities.

11. The public should be fully informed about the health risk from naturally occurring chemicals. This health risk must be considered when setting cleanup goals.

Arc Ecology

Peace • • • Environment • • • Economy • • • Society

July 19, 2000

Mr. Mike McClelland
BRAC Environmental Coordinator
1230 Columbia Street
San Diego, CA 92101

Sent by FAX to: 619-532-0983

Dear Mr. McClelland:

Please find enclosed, Arc Ecology's comments on the Remedial Action Plan / Record of Decision and the Proposed Plan for the Marsh Crust and Subtidal Areas at Alameda Point and for the Marsh Crust and Shallow Groundwater at the FISC Annex. Also note that we have included an Alameda Point Restoration Advisory Board resolution related to the Marsh Crust as part of our comments.

If you have any questions, please do not hesitate to contact me at the Arc Ecology office.

Best Regards,

Ken Kloc

Ken Kloc
Environmental Analyst

833 Market Street, Suite 1107 • • • San Francisco, California 94103
TELEPHONE: (415) 495-1786 • • • FAX: (415) 495-1787 • • • E-MAIL: arc@igc.org

Arc Ecology

July 19, 2000

Comments on the Draft Remedial Action Plan / Record of Decision and the Proposed Plan for the Marsh Crust and Groundwater at the Fleet and Industrial Supply Center Oakland, Alameda Facility / Alameda Annex, and for the Marsh Crust and Former Subtidal Area at Alameda Point

1. Insufficient Investigation of Subsurface Soil Contamination in Marsh Crust and Subtidal Areas

The Record of Decision / Remedial Action Plan (RAP/ROD) and Proposed Plan are based upon an insufficient investigation of the subsurface contamination present in the Marsh Crust and Subtidal (MCS) soil layer. In developing a feasibility study for the MCS contamination, the Navy has treated the MCS soil layer as a *de facto* operable unit. However, the Navy has never carried out a remedial investigation specifically for this operable unit. Much of the data used in the MCS feasibility study came from remedial investigations that were not specifically designed to characterize the nature and extent of the MCS contamination. As such, numerous data gaps exist, and this has produced an incomplete conceptual model for the MCS area.

More specifically, the MCS feasibility study is based on remedial investigations carried out at other operable units on the FISC Annex and Alameda Point. However, these investigations do not provide sufficient coverage of the entire MCS area. The MCS contamination has been investigated in less than half of the region of Alameda Point believed to be affected by this contamination.

This inadequate level of sampling is problematic from the perspective of defining both the horizontal and vertical extent of MCS contamination. In developing its remedial action plan, the Navy has assumed that the MCS contamination exists in a narrow and clearly defined planar zone of subsurface soil. This assumption is not health protective, since it does not consider the possibility that deep soil may have been displaced to shallow and surface soils during excavation and regrading activities carried out as part of historical construction projects. Indeed, there is at least one site at Alameda Point (IR Site 25) where Marsh Crust contamination has been found in surface and shallow subsurface soils (i.e., at 1 to 2 ft. below ground surface). Site 25 is an area where soil regrading may have disturbed the original placement of the Marsh Crust contaminants in the deep soil. Similarly, historical regrading or excavations may have brought deep-soil contamination closer to the surface at other MCS area parcels. However, the Navy has not adequately investigated MCS contamination at many Alameda Point parcels, and it does not have the required data to rule out this possibility.

Under these circumstances Arc Ecology does not feel that the RAP/ROD and the Proposed Plan are sufficiently protective of human health or the environment. Accordingly we recommend revision of these documents after the appropriate remedial investigation for the MCS contamination has been completed.

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2. Benzene Contamination in Groundwater and Soil Gas

Soil gas studies conducted at both FISC Annex and Alameda Point have indicated a low spatial correlation between soil gas and groundwater benzene concentrations. However, the Navy has not carried out studies to determine the reason for this low correlation. Arc has two main concerns with the lack of investigative follow-up in this case:

- First, we believe that several rounds of soil gas sampling should have completed over the course of a year in order to characterize variability due to changing atmospheric conditions.

- Second, we point to a recent Lawrence Berkeley Laboratory soil gas study conducted at one of the Alameda Point fuel contamination sites (M.L. Fischer et. al., Environmental Science and Technology, v30, pp 2948-57, 1996). In this study, a thin, relatively impermeable soil layer at 0.7 meters below the surface of the site, was found to be responsible for a large fraction of the observed soil gas attenuation. If a similar soil layer exists at the FISC Annex, this may be the reason for the low benzene soil gas concentrations found above the groundwater plumes. Should such a shallow soil layer be responsible for benzene attenuation at the FISC Annex, then institutional controls on soil excavation may be necessary to prevent disruption of the soil layer, and to prevent consequently increased transport of benzene vapor into buildings situated above the groundwater plumes.

Accordingly, Arc recommends further study of the groundwater-to-soil gas pathway prior to finalizing the RAP/ROD and the Proposed Plan.

3. Naphthalene Contamination in Groundwater.

In addition to benzene, shallow groundwater at the FISC Annex contains elevated concentrations of naphthalene, a chemical which is volatile enough that it may become an indoor air hazard at buildings situated above a groundwater plume. Naphthalene concentrations in groundwater at the southern portion of the FISC property have been as high as 7800 ppb (MW-9). Groundwater underneath Marina Village housing (Alameda Point parcel 178) was also found to have elevated levels of naphthalene. Furthermore, 7 out of 23 indoor air samples taken at Marina Village housing under the FISC Annex sampling program showed naphthalene concentrations in the range of 150 to 280 ppb. These values are substantially higher than EPA's ambient air PRG for naphthalene.

The Alameda Annex study dismissed these indoor air concentrations of naphthalene, assuming that they resulted from the household use of mothballs. In the absence of proof that these housing units contained mothballs, Arc Ecology is concerned that elevated indoor air concentrations of naphthalene may, instead, be due to contaminated groundwater and soil at Alameda Point Parcel 178. Furthermore, we are concerned that the Parcel 178 indoor air results indicate a wider problem with naphthalene in groundwater at the FISC Annex. We therefore believe that the current RAP/ROD and Proposed Plan for groundwater may not be protective for future residential or commercial use of these parcels. Accordingly, we recommend further study to clarify the exact nature of the groundwater-to-indoor air problem at the subject sites.

4. Selected Remedy for Marsh Crust and Former Subtidal Area

a. Lack of community support for current land use controls

The Navy has chosen land use controls as its preferred remedial action for the MCS soil contamination at Alameda Point and the FISC Annex. According to the Navy, a key component of these land use controls will be the Marsh Crust Ordinance, described on page 2-20 of the RAP/ROD:

Land use controls, as they are currently construed by the Navy, do not have full community support. The Alameda Point Restoration Advisory Board (RAB) has criticized the Navy's current plan for institutional controls, which relies heavily upon the Alameda Marsh Crust Ordinance. For example the community members of the RAB have recently passed a resolution criticizing the Alameda Marsh Crust Ordinance, and by implication, the Navy's land use control plan. Both Arc Ecology and the Alameda RAB are concerned that the Ordinance:

- Incorrectly assumes that the Navy has fully characterized the lateral and vertical extent of the MCS contamination at Alameda Point
- Does not provide for an ongoing program of notification to residents that institutional controls have been placed upon their property
- Indiscriminately covers areas that may not be contaminated and thus may place an unnecessary financial burden upon affected Alameda citizens. The Navy has not taken this cost into consideration when evaluating its remedial alternatives

In addition, we now attach, and include for the record, the Alameda RAB resolution on the Marsh Crust Ordinance.

We also point out that even if the Navy were not to rely on the Alameda Marsh Crust Ordinance as a key component of its institutional control plan, the RAB's criticisms, as presented in the attached resolution, would still be relevant to the proposed remedial action, since the Navy's contingency plan, in the case that the Ordinance is repealed, suffers from the same problems as the City Ordinance.

b. Land Use Control Implementation and Certification Plan (LUCICP)

The Navy states that the, "roles and responsibilities for implementing and enforcing the land use controls would be documented in the LUCICP " As described, the content of the LUCICP indicates that it should be a component of the RAP/ROD and Proposed Plan, open to public review and comment. Arc Ecology is concerned that the current plan to prepare the LUCICP after the comment period for the Proposed Plan, will circumvent the CERCLA community participation requirements. We therefore recommend that the formal public comment period for this Proposed Plan be extended until the LUCICP is prepared and we also recommend that that the normal CERCLA public review and comment protocols be followed in the preparation of the LUCICP document.

c. Deed restrictions

The Navy's selected remedy includes deed restrictions enforceable by the Navy However, the U.S. EPA has recently stated in a 5/11/2000 letter to Mr. Dana Sakamoto of the Navy's EFD Southwest office, that it, "considers a covenant enforceable by the Navy to be a necessary part of an institutional control remedy for any Navy property being transferred..." Arc Ecology concurs with the EPA's opinion. Accordingly, we recommend that the Navy include the language of such a covenant in the RAP/ROD.

d. Threshold depths not reported

Please report the threshold depths below which excavation shall be prohibited. Arc recommends that a threshold depth map be provided in the RAP/ROD. Given that this is an important technical component supporting the Proposed Plan, the public should be given the opportunity to comment upon this aspect of the remedy.

e. Expected outcomes of the selected remedy

The Navy states that the selected remedy would meet the Remedial Action Objective (RAO) because land use controls will prevent undue exposure. Arc Ecology disagrees that the Navy has met the RAO, since the Navy's rationale was developed in the absence of a proper and complete remedial investigation for the MCS contamination. We believe that there is a reasonable likelihood that MCS contamination may exist in shallow and surface soils at numerous Alameda Point parcels that have not been adequately sampled for PAHs throughout the soil column.

5. Selected Remedy for Shallow Groundwater

a. Unrestricted use of groundwater for irrigation

Groundwater in the regions affected by the MCS contamination contains elevated levels of some of the more soluble PAH compounds, as well as, benzene. Thus, the Navy's selected remedy for shallow groundwater stipulates that the, "disposal of extracted groundwater from construction site dewatering into the waters of the state except in compliance with the requirements of RWQCB will be prohibited." On the other hand, the selected remedy will allow unrestricted use of groundwater for irrigation purposes. We are concerned that unrestricted use of groundwater for irrigation will result in the discharge of contaminated groundwater to storm drains. In a typical irrigation scenario, the probability of overwatering is relatively high and this would produce contaminated runoff. Thus we believe that the Navy's proposed groundwater remedy will not achieve compliance with the Clean Water Act.

b. Unresolved soil gas data gaps

Given the unresolved questions regarding both benzene and naphthalene in soil gas at the subject sites, we do not believe that the selected remedy for groundwater at the FISC Annex is supported by a sufficient level of investigation. As such there is a reasonable possibility that the selected remedy for groundwater may not be sufficiently protective of human health.

July 19, 2000

Arc Ecology

Comments on the Draft Remedial Action Plan / Record of Decision and the Proposed Plan for the Marsh Crust and Groundwater at the Fleet and Industrial Supply Center Oakland, Alameda Facility / Alameda Annex, and for the Marsh Crust and Former Subtidal Area at Alameda Point

Appendix

Resolution of the Restoration Advisory Board (RAB) for the Former U.S. Naval Air Station, Alameda, California (Alameda Point), April 4, 2000

(two pages to follow)

Resolution of the Restoration Advisory Board (RAB) for the former U.S. Naval Air Station, Alameda, California (Alameda Point) April 4, 2000

WHEREAS: The responsibilities of the Alameda Point Restoration Advisory Board include providing advice to various government agencies related to the environmental restoration at the Alameda Point Superfund Site, and also interacting with land use planning bodies to discuss future land use issues relevant to environmental decision making; and

WHEREAS: The U.S. Navy is responsible for environmentally restoring properties that have been under its control, including Alameda Point and the adjacent FISC Annex facility. As part of its restoration program at these two facilities, the Navy has proposed institutional controls as the remedy for subsurface soil contamination present in the so-called "Marsh Crust and Subtidal Zones," and

WHEREAS: The U.S. EPA and the California Department of Toxic Substances Control (California DTSC) have indicated their agreement with the Navy's proposal to use institutional controls as a remedy for the Marsh Crust and Subtidal Zone contamination; and

WHEREAS: The main mechanism by which these institutional controls will be implemented is an excavation ordinance that has been passed by the City of Alameda; and

WHEREAS: The community members of the Alameda Point RAB have reviewed the City's excavation ordinance and have significant concerns with its provisions. These include the following issues:

- The ordinance assumes that the Marsh Crust contamination has been adequately characterized by the Navy and that areas of contaminated and uncontaminated soils are accurately known. In fact, the Navy has not carried out sampling of deeper soils at many of its parcels. Therefore the permitted excavation depths will, in many cases, be speculative.

- The ordinance only covers former Navy property that is being transferred to the City, even though the Marsh Crust contamination is known to extend beyond Navy property. Since the ordinance and the Navy have already determined that this contamination represents a toxic hazard to occupants on Navy property, then those non-Navy property occupants subject to the same Marsh Crust hazard should be extended equal protection, now and in the future.

- The ordinance indiscriminately covers areas that may not be contaminated. For example, the ordinance covers all Alameda Point parcels going to the City, even though the Marsh Crust and Subtidal contamination has not been demonstrated to exist at all of these parcels. Thus, the ordinance is over-expansive and may place an unnecessary financial burden upon affected Alameda citizens.

- The most probable excavator into the Marsh Crust will be the City of Alameda itself (all underground trenching for utilities), or a utility company. The ordinance does not cover institutional oversight or controls on the city of Alameda or its agencies and possibly other utility companies. Since the costs of laboratory/chemical tests, health and safety plans, operation plans, certification surveillance, and length-of-time for approval, all add up to inconvenience, delay, and cost, self-policing by the City would be a direct conflict of interest. In particular, the California DTSC needs to be more directly involved in overseeing the proposed institutional controls.

- The ordinance does not provide for an ongoing program of notification to residents that institutional controls have been placed upon their property

WE THEREFORE: Notify the City of Alameda that its excavation ordinance suffers from significant deficiencies that may cause the City difficulties in the future; and

FURTHER: We recommend that the City of Alameda take the following actions:

- Petition the U.S. EPA and the California DTSC to require the Navy to fully characterize all of its parcels within the Marsh Crust and Subtidal zones prior to transfer.

- Revise the excavation ordinance in order to make it an effective and reasonable institutional control for protecting public health at the Marsh Crust and Subtidal zone; only fully characterized areas that indicate the presence of Marsh Crust contamination should be covered; in addition, Marsh Crust contaminated areas beyond Navy property should be included in the ordinance

- Request that that the Navy help defray the cost of the institutional controls so that they do not become an undue burden on the City.

- Implement a notification program providing all residents and property owners within the Marsh Crust map area annual notice of the potential hazard and of the terms of the Marsh Crust Ordinance

- Provide for provisions assuring that the ordinance covers City of Alameda and utilities

WE WANT TO HEAR FROM YOU

To be included on the Navy's mailing list for Alameda Facility/Alameda Annex and Alameda Point, please complete and return this form. This form may also be used to submit comments on this Proposed Plan. Additional pages may be used if necessary. *Comments must be postmarked by July 20, 2000.* For additional information about the comment period, please call Mr. McClelland at (619) 532-0965.

NAME [redacted] PHONE [redacted] FAX [redacted]

MAILING ADDRESS: [redacted]

CITY: CASTRO VALLEY, CALIFORNIA STATE: ____ ZIP: 94546

COMMENTS: THERE IS CONCERN FOR THE HAZARDOUS WASTES IN THE WETLAND AREAS LOCATED WITHIN THE WILDLIFE HABITAT AREAS. THE SEAPLANE LAGOON IS ALSO CONTAMINATED. BIRDS FORAGE IN THIS LAGOON. PLEASE KEEP US INFORMED ON THE NAVY'S PLANS FOR REMEDIATION IN THESE AREAS.

[redacted]

To be included on the Navy's mailing list for Alameda Facility/Alameda Annex and Alameda Point, please complete and return this form. This form may also be used to submit comments on this Proposed Plan. Additional pages may be used if necessary. *Comments must be postmarked by July 20, 2000.* For additional information about the comment period, plea: ...ll Mr. McClelland at (619) 532-0965.

NAME [redacted] PHONE [redacted] FAX [redacted]

MAILING ADDRESS: [redacted]

CITY: DIXON STATE: CA ZIP: 95620

COMMENTS: USGS - Biological Resources Division

To be included on the Navy's mailing list for Alameda Facility/Alameda Annex and Alameda Point, please complete and return this form. This form may also be used to submit comments on this Proposed Plan. Additional pages may be used if necessary. *Comments must be postmarked by July 20, 2000.* For additional information about the comment period, please call Mr. McClelland at (619) 532-0965.

NAME [redacted] PHONE [redacted] FAX ____

MAILING ADDRESS: [redacted]

CITY: ALAMEDA STATE: CA ZIP: 94502

COMMENTS: WOULD LIKE YOU TO SEND ME MORE INFO. ON HOW CONTAMINATED THE SOIL IS AT THE FORMER NAVY BASE IN ALAMEDA. WHAT ARE THE "HOT SPOTS? HOW MANY ARE THERE? WHAT IS THE COST TO CLEAN THEM UP? WHAT LEVELS OF WHICH HAZARDOUS SUBSTANCES HAVE BEEN MEASURED AND WHERE?

To be included on the Navy's **mailing list** for Alameda Facility/Alameda Annex and Alameda Point, please complete and return this form. This form may also be used to **submit comments** on this Proposed Plan. Additional pages may be used if necessary. *Comments must be postmarked by July 20, 2000.* For additional information about the comment period, please call Mr. McClelland at (619) 532-0965.

NAME [redacted] PHONE [redacted] FAX [redacted]

MAIL [redacted]

CITY: Alameda, CA 94501 STATE: _____ ZIP: _____

COMMENTS: Re Alternative 2 in Cleanup program: "Limited purposes" I use / groundwater should not include irrigation because fruit trees & vegetables could well be included, & could be contaminated.

FILE

APPENDIX F

SUMMARY OF MAJOR TEXT CHANGES

(One Page)

SUMMARY OF TEXT CHANGES IN THE DRAFT FINAL REMEDIAL ACTION PLAN/RECORD OF DECISION FOR FLEET AND INDUSTRIAL SUPPLY CENTER, OAKLAND ALAMEDA FACILITY/ALAMEDA ANNEX AND ALAMEDA POINT

This Appendix contains a list of text changes that were made to the draft Remedial Action Plan/Record of Decision (RAP/ROD) for Fleet and Industrial Supply Center Oakland (FISCO) Alameda Facility/Alameda Annex and Alameda Point released for public comment on June 20, 2000, by the Engineering Field Division – Southwest (EFDSW) and the California Environmental Protection Agency Department of Toxic Substances Control (DTSC). The changes were made by EFDSW in response to review comments submitted by the public, DTSC, and staff of the Region 9 office of the U. S. Environmental Protection Agency (EPA). The public comment period for the draft RAP/ROD was closed on July 20, 2000. These comments are included in the administrative record for the final RAP/ROD

- As a result of discussions between the EFDSW and DTSC it was determined that uncertainties regarding the nature and extent of shallow groundwater contamination warranted postponing selection of a remedy until additional data are acquired an evaluated. However, all parties agree that the selection of the remedy for marsh crust and subtidal deposits should not be delayed pending selection of the remedy for groundwater. For that reason, groundwater has been removed from the final RAP/ROD and will be addressed in a future RAP/ROD. Several sections were modified or deleted to remove references to a remedy for groundwater at Fleet and Industrial Supply Center Oakland (FISCO) Alameda Facility/Alameda Annex, including Sections 1.0, 1.1, 1.2, 1.4, 1.5, 2.2.1.1, 2.4, 2.5,1.5.4, 2.6, and Section 2.6.2.

- Section 1.1, Paragraph 3: The text was revised to reflect the correct scope of the listing of Alameda Point in the National Priorities List.

- Section 1.4, Last Paragraph: The "Decision Summary Checklist" example language from EPA's A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Document (EPA 1999) was inserted.

- Sections 1.4, 2.9.1, 2.9.2, 2.12.1, 2.12.2, 2.13.1, and 2.13.2: These sections were revised to reflect that certain parts of the remedial action, specifically the Environmental Restrictions in Deed and the Covenant to Restrict Use of Property, were completed on July 20, 2000. These sections were also revised to reflect that a copy of the marsh crust ordinance and accompanying map were included in the final RAP/ROD as an appendix.

- Sections 1.4, 2.7.1.2, 2.7.1.4, and 2.8: These sections were revised to reflect that excavation and uncontrolled handling of contaminated marsh crust and subtidal area material or extraction of contaminated shallow groundwater are two scenarios that would result in levels of risk determined to be unacceptable for unrestricted use.

- Section 2.2.2: The text was modified to correctly state the number of Installation Restoration (IR) sites and Operable Units (OU) at Alameda Point.

- Sections 2.9.1 and 2.9.2: These sections were revised to reflect present worth cost calculations.

- Administrative Record: The administrative record was revised to include additional documents, as indicated.